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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
Local vs. National Reputations
Confidential Statistics
A Place In the Sun
What's Ahead?
Personality Traits to Look For In Hiring Salesmen
Quoting Abraham Lincoln

Story of the Week

Al Hofeld, wholesaler from New York City and Long Island, and Phil Coleman, wholesaler from Brooklyn, were trying to coax Murray Bergman, wholesaler from Jamaica, to fly back to New York City after the Cleveland exposition—on the same flight upon which they had already secured passage.

Murray was adamant in his refusal, saying that inasmuch as he had never been in a plane before, he would stick to the railroad.

"After all, Murray," Al Hofeld persuaded, "if you should fly back to the city with us, the worst that could possibly happen would be that there would be three jobbers less in the New York area."

"No," replied Bergman, "there would be four less."

"How do you figure?" asked Al.

"If the plane should crash and we were killed," explained Murray, "Charles Pose (a competing wholesaler from Brooklyn and Long Island) would drop dead from the shock!"

Local vs. National Reputations

"Give me good and loyal dealers working hard to sell my product," a canny sales manager told us recently, "and you can have all the radio and magazine advertising you want. A good dealer can do twice or three times as well with a nationally unknown appliance in his locality as a mediocre dealer can do with a product which has the backing of regular advertising pages in the leading national magazines. The problem, of course, is to line up the *good* dealers."

To illustrate his thesis, this sales executive tells a little story about himself. It seems that he decided to paint a few gables on his house. He went down to the hardware dealer in his suburban community, and placed a substantial order for the best-advertised and best-known brand of paint.

"Well, I can sell you Blank Paint," said the dealer. "I have plenty of it right here in stock. But you have a nice home out there. It deserves good paint. Now here is a paint which will wear much longer, and has truer colors. It will cost you more money. But it's worth it. You've done business with me for a long time, and you know I wouldn't steer you wrong."

He made the sale.

"I'm a merchandising man," points out this executive, "and I have confidence in products which are nationally advertised. But important as that may have been to me, it didn't weigh so strongly even in my mind as did confidence in my local dealer—who was thus able to sell me a brand of paint of which I had never heard."

It should be noted that this executive is not trying to cover up a deficiency in his own national advertising by decrying magazine and radio promotion. In the past he has out-advertised the field and all his competitors.

The point is that out of many years of merchandising experience he has learned, contrary to his own inclinations, that good dealers are vastly

(Concluded on Page 8, Column 1)

Panel Cooling and Heat Pump Took Spotlight at N. Y. Show

By C. Dale Mericle

NEW YORK CITY—Panel cooling may be the next big advance in the technique of air conditioning, it was indicated at the International Heating & Ventilating Exposition here.

A test installation of such a system is already under way in a part of Radio City, it is reported.

Panel cooling, which like radiant or panel heating, makes use of coils built into walls, ceilings, or floors, and may or may not be supplemented with conventional air conditioning methods, "is not as distant as some feel," according to Ernest Williams, air conditioning engineer with Guy B. Panero, New York City consulting engineer.

His firm, he added, is now making a comprehensive survey of the cost and practicability of panel cooling.

(Details and pictures of some of the products in the air conditioning field which were displayed at the New York show will appear in next week's NEWS.)

Another encouraging note was the statement made at the exposition by C. E. Wilson, vice president of Worthington Pump & Machinery Corp., who declared that for the first time in history dealers and distributors of heating and air conditioning

(Concluded on Page 29, Column 3)

NEW YORK CITY—The logical market to aim for in the initial promotion stages of the heat pump is the commercial field, particularly restaurants.

This point was brought out by W. E. Johnson of General Electric Co. who participated in a symposium on "The Heat Pump for Year-Round Air Conditioning" conducted by the American Society of Heating & Ventilating Engineers at its fifty-fourth annual meeting held in the Commodore hotel here Feb. 2 to 5.

The average restaurant, which has a heavy internal heat load, should prove especially satisfactory for heat pumps of the air-to-air design, because the heavy summer cooling load will more closely balance the heating load that would be imposed upon the heat pump in winter, said Johnson.

Thus, the machine selected for such a job will not require excessive capacity which will have to be "unloaded" too much of the time, and should therefore provide an economical operation most of the year, he implied.

The residential market for heat pumps is still well in the future, asserted Johnson, who declared that the emphasis on low cost housing will mean that people who want to buy a home for $8,000 will not want to spend $1,500 to $2,000 for a heat pump.

This point, however, was countered by the statement of Prof. E. N. Kemler of New York university, who commented that people who worry about spending $8,000 for a house

(Concluded on Page 4, Column 1)

G-E Hoped Price Cut Would 'Start Parade'

NEW YORK CITY—General Electric Co. reduced prices recently not as a mere "gesture" but "to earn the right to urge others to take action" and with the hope that it "might start a parade that couldn't be stopped," according to Robert S. Peare, G-E vice president.

Addressing the Fifth National Conference of Business Public Relations Executives here, Peare struck back at those who have questioned the sincerity of G-E's move. Anything that costs as much as the price reductions did is not considered a "gesture" by G-E executives, he declared.

Prices, he said, are the only point of contact between millions of buyers and sellers. He described the reductions as an example of "public relations action on the economic front."

The price situation was one of three keynote topics of the two-day meeting sponsored by a 30-member

(Concluded on Page 32, Column 3)

Bankers Group Tightens Recommended Terms

NEW YORK CITY—In contrast to the trend toward extremely liberal credit terms currently under way here, the American Bankers Association has issued a bulletin to its members urging them to tighten up on credit for major appliances and radios.

The association's recommended terms are even stricter than the ones they set forth just before the dropping of government credit controls last November.

On refrigerators and gas and electric ranges, the ABA is still asking for a 20% down payment, but has cut the terms from 36 to 24 months.

On washing machines and ironers it has upped the down payment from 20 to 25% and cut the terms from 36 to 18 months.

On radios, phonograph combinations, and television sets (plus installation for television), recommended down payments remained at 25%, but terms were shaved from 18 to 15 months.

A minimum down payment of $15 and a minimum monthly payment of $7.50 is also urged.

Sears Sees Conspiracy By Plumber Groups

CHICAGO—Allegations that master plumbers associations and some plumbing wholesalers and manufacturers are conspiring to prevent the installation of plumbing products sold by Sears, Roebuck & Co. and violating the Taft-Hartley law were brought to light at a hearing before a House labor sub-committee here last week.

The sub-committee, headed by Rep. Gwinn, New York Republican, heard testimony by A. J. Natemeyer, retail sales manager of the Sears plumbing and heating department, that in several towns in scattered parts of the country, local plumbers were refusing to install the company's products and preventing other plumbers from doing so.

Their actions, Natemeyer testified, in some instances, has obstructed the

(Concluded on Page 32, Column 5)

Creditors Committee For Gemco Dissolved

ST. LOUIS—Voluntary dissolution of the committee representing creditors of General Engineering & Mfg. Co. here has been announced by William T. Sutter, Westinghouse Electric Co., chairman of the committee.

This action, it was stated, comes as a result of the progress made in the company's financial and sales status under the direction of Norman B. Schreiber, who was brought into the organization in August, 1947, as chairman of the board and general manager.

Since that time, it is reported, the manufactured inventory has been substantially reduced, the distributor organization has been tripled, and the financial status improved to the point that creditors and St. Louis banks agreed that committee services are no longer needed. Schreiber will remain with the company as chairman and general manager.

Wage Rise Open As Westinghouse, Union Negotiate

PITTSBURGH—Contract negotiations between Westinghouse Electric Corp. and the United Electrical Workers (CIO) began here last week with the question of wage increases left wide open for discussion.

"No specific figure is being handed to the company and we are not going in with any dollar and cents demand," Edward J. Matthews, international U.E.W. representative and head of the union's negotiators, stated before the meetings began.

Matthews explained that the union was just asking for a substantial wage increase with the specific amount to depend on living costs at the time of settlement and the company's ability to pay.

Any continuation of the current trend toward lower living costs would be taken into consideration, he stated.

It was indicated that only modifications of the contract and not the contract as a whole are being discussed. Approximately 70,000 production employes in 25 manufacturing plants are affected.

Negotiations started off in an optimistic and friendly atmosphere and without the necessity of meeting a deadline, it was reported. Both the company and the union have agreed to waive their right to terminate the contract this year. The contract expires on April 1.

Local Bolts UE Citing Communist Domination

NEW YORK CITY—In protest against the allegedly Communist leadership of the United Electrical, Radio & Machine Workers Union (CIO) that has left them unable to deal with their own employers, the 355 man Local 1237 here recently voted 100% to disaffiliate from the UE and set up their own Mechanical & Electrical Workers Union of America.

The bolt closely followed an announcement by Remington Rand, Inc. that it would deal with the UE only if the National Labor Relations Board certified the union. UE officials so far have refused to sign non-Communist affidavits, a prerequisite to certification.

John J. Conroy, business agent for

(Concluded on Page 4, Column 4)

Locker, Home Freezer Storage Responsible For Lower Meat Price?

NEW YORK CITY—Latest analysis of causes behind the recent drop in the price of meat gives credit to freezers and lockers.

People who own them, says a *Wall Street Journal* report, were buying up large cuts of meat back when government talk about meat shortages and rationing was the loudest. Now that pressure has eased, these same folks have been using up the reserve of pork chops and sirloins. Hence, current stocks of unsold meat have piled up and prices have begun skidding on the wholesale market.

Witness the testimony of one large Cleveland meat dealer whose trade has dipped during the past few weeks:

"When that rationing talk was at its height, customers came in and bought whole hindquarters at a time," he commented. "Some of them now have 150 to 200 lbs. of meat stored at home or in commercial freezers. They won't be coming into meat markets for some time."

Home Freezer 1947 Sales Hit 500,000 Mark

Two Reporting Groups Show Shipments of Over 430,000 Units

DETROIT — Shipments of home and farm freezers in 1947 very probably passed the 500,000 unit mark.

That estimate is based on two official tabulations of shipments issued last week.

National Electrical Manufacturers Association (Nema), reporting the sales of 32 companies during the course of the year, reported sales (domestic only) of 288,763 farm and home freezers of under 16-cu. ft. capacity.

Farm and Home Freezer Manufacturers Association reported that its members (number not given) shipped a total of 141,559 home and farm freezers of all sizes during 1947.

It is improbable that there was much, if any, duplication between these two reporting agencies. Thus, the two reports show a total of 430,000 freezers shipped during the year, and it is quite likely that at least another 70,000 units were sold and not reported during the course of the year.

The group reporting to Nema showed a predominance of sales in the 4-6 cu. ft. sizes, while the Farm and Home Freezer Manufacturers Association report showed the 11 to 16-cu. ft. size to be the most popular.

(Tabulated data on these two reports is published on page 32.)

Code Is Altered by Bureau In Knoxville

KNOXVILLE, Tenn.—Revision of the Knoxville Major Appliance Bureau's code of ethics for major appliance dealers and the election of new officers for the coming year marked the recent annual meeting of the association, Clyde O. Carpenter, Jr., commercial manager of the Knoxville Utilities Board and member of the bureau, has reported.

The code, he said, was rephrased so as to be in the form of recommendations to the dealers instead of a signed agreement. This, he noted, was to avoid possible difficulties with the anti-trust laws.

New officers of the bureau are: Frank Oates, of S. H. George & Sons, president; Allen Bell, Jr., vice president; and W. L. Holder of the Knoxville Utilities Board, secretary and treasurer.

No action was taken on a proposal by the bureau that a consolidated organization be formed to handle reconditioning of traded-in appliances, according to Carpenter. There is still a possibility that this may be done when trade-ins on refrigerators become a major problem, he said.

The revised code of ethics, with the changed words in parentheses follows: "Code of Ethics Recommended

(Concluded on Page 19, Column 2)

Kenmore Range Features 'Robotimer', 'Visa-Bake'

CHICAGO — Three new postwar Kenmore electric ranges, a deluxe model priced at $255 and two others at $215, are now available for delivery, according to the midwinter "flyer" of Sears, Roebuck & Co.'s mail order division.

Features of the deluxe model include a "Robotimer" on the oven, "Visa-Bake" oven door, a fluorescent lamp on the back guard, two appliance outlets, and a "top-or-well" aluminum cooker.

Troth Heads Commercial Credit Jacksonville Office

JACKSONVILLE, Fla. — Appointment of E. L. Troth as vice president of Commercial Credit Corp. and manager of its Jacksonville Division has been announced by D. E. Statter, senior vice president in charge of its southern territory.

Troth's promotion brings him to Jacksonville from Birmingham, Ala., where he was district manager. The Jacksonville Division includes offices in Gainesville and Ocala, Fla., and Albany, Savannah, and Valdosta, Ga.

Gateway Swings to A. & D.

JACKSONVILLE, Fla. — Dell Wright, a native of Jacksonville, has acquired the Gateway Refrigeration Service at 834 Flagler St. and changed the name to A. & D. Refrigeration Co.

Wright started working with refrigerators more than 10 years ago as a hobby. Becoming more interested, he decided to enter the field as a full-time trade.

Appliance-Selling Plumbers Utilize Inventory Check-Lists To 'Swap' Their Over-Stocked Items

WASHINGTON, D. C. — The 19 members of the Merchandising Plumbers' Association of Washington, D. C., all franchised appliance dealers, are furnishing each other with mimeographed inventory lists for "swapping" purposes.

"The idea is simply this," said Edward B. Kent, of the J. C. Flood Co. and secretary of the group. "Nearly all of us are heavily over-inventoried on some appliance lines, but seldom in precisely the same lines as other members.

"Therefore each member of the association has agreed to make up a complete inventory, with names of home equipment, which is duplicated, and split among other members.

"Benefits of this are many. A member over-inventoried on one particular type of range, for example, can readily help out another plumber who has very little of that particular line. Similarly, those of us in the electrical appliance business may be able to exchange needed appliance parts, electrical wiring, fittings, etc., where they will help out most.

"We're considering using a master sheet which everybody in the association can use on a regular basis.

Plumbers who have co-operated in the plan include Carl Lipp & Son, 1412 Hughes St.; Pruitt & Zimmerman, Inc., 2438 18th St.; John G. Webster, 627 F St.; John Wimmel, 4420 Georgia Ave.; Leonard G. Gaymud, 46 Detrich Ave.; W. J. Baumbach, 4147 Wilson Ave.; and F. A. McGonegal, 6829 Lee Highway.

Others from surrounding towns, include F. N. Loria, 4713 Miller Ave.; R. T. Wehrle, 7830 Wisconsin Ave.; Amburger & Wohrforth, 4701 41st Ave.; Atchinson & Keller, Inc., 1426 Taylor; Julius T. Becker, 1020 18th St.; Anthony Bovello, 3912 Georgia; the Maurice J. Colbert Co., 1908 M St.; and the J. C. Flood Co., 2012 14th St. Such communities as Bethesda, Arlington, Falls Church, Kensington, Maryland, are all represented in the plan.

Warranty Responsibility, Better Mfr. Inspection To Get Main NARC Attention

CLEVELAND—One of the major problems now being attacked by the National Association of Refrigeration Contractors is that of "the confusion existing in our business with respect to the plumbing, steam fitting, heating, and sheet metal business," retiring President Warren W. Farr reported at NARC's second annual meeting here.

"We must reach clear lines of demarcation because of the special nature and the importance of our business," Farr declared.

"We must acquaint architects, consulting engineers, and general contractors with the fact that the refrigeration and air conditioning applications should be treated separately and respected as important special applications."

Another problem which NARC is attempting to solve is that of warranties, Farr told the contractors.

"The contractor has been seriously penalized in fulfilling guarantees and warranties which have been written primarily by manufacturers and without consultation with contractors," he said.

"The point is presently proposed that the contractor should pass on to the consumer the manufacturer's warranty as it is given to him, rather than to indicate to the consumer that as a contractor he will fulfill all of the terms of the warranty. This matter has been discussed with manufacturers and has been taken under advisement by their trade relations committee. . . ."

During the past year, a high failure rate of expansion valves, controls, and accessories "have caused too many of our members a loss in time and money through no fault of their own," Farr continued.

"We have pitched in on many of these specific cases and have started the manufacturer thinking seriously of ways to improve this condition. We have specifically recommended to REMA's relations committee that better quality control and better final inspection be suggested to their membership.

"Some of these manufacturers are already exercising more care in their operations and are striving to improve the quality of their products."

Turning to the proposed testing laboratory procedure, Farr said this program will make available to members information concerning the quality of many of the products they use. But the program will not attempt to tell members which product they should buy, he stressed.

"However," he explained, "from the information passed along by the testing laboratory, you will be able to determine where your dollar does the most good, and you will be able to insure your customer that you are supplying material of the best quality. This program will encourage the manufacturer to produce trouble-free equipment of better quality than we have ever known in our industry."

In covering other activities of NARC during the year, Farr noted continued efforts to solve the "Freon" situation, establishment of "The Trading Post" to assist members primarily with overloaded inventories, compilation of the first set of statistics on contractors and of information on operating forms, and additions to files on labor contracts, union agreements, licenses, ordinances, codes, etc.

He also called attention to the fact that NARC has obtained industry recognition by membership on the Construction Industry Advisory Council of the U. S. Chamber of Commerce and on the Refrigeration Industry Council, by representation on the ASA-B9 Safety Code Committee, through appointment of a new NARC relations committee with REMA, and through steady growth and good publicity.

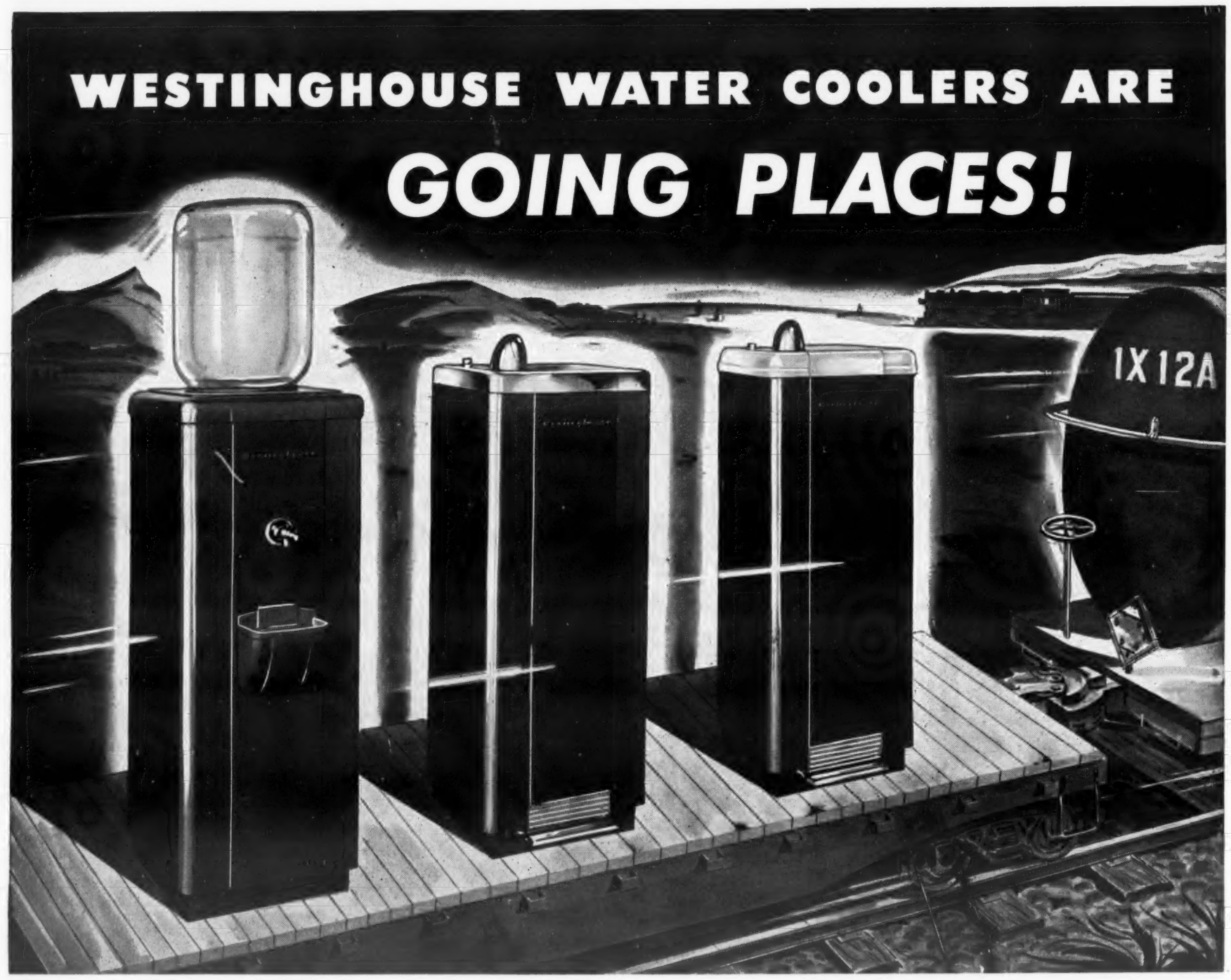
New local associations on NARC's list include Chicago, Duluth-Superior, Fresno, Oregon State, Pittsburgh, Sacramento Valley, Toledo, and Iowa.

G. T. Stevens Resigns from Key Position at Eureka Williams

BLOOMINGTON, Ill.—Resignation of G. T. Stevens, executive vice president of Eureka Williams Corp. and manager of the Eureka Division, was announced last week by H. W. Burritt, president.

At the same time Stevens stated that his plans for the future would be announced within a short time.

WESTINGHOUSE WATER COOLERS ARE GOING PLACES!



So get aboard the Gravy Train

Going places is right! Now's the time for you to climb aboard this profit train with the new, '48 line of Westinghouse Water Coolers. They're different! They're new in product design! They've got everything!

- **FOOT PEDAL CONTROL**...all Pressure Coolers have a foot pedal operated bubbler for added convenience and sanitation.
- **AUTOMATIC STREAM HEIGHT REGULATOR** . . . holds the water flow constant, regardless of variations in local water pressure.
- **STAINLESS STEEL TOP** . . . a shining, one-piece, unbreakable top that gives durable, sanitary, splashproof service.
- **REMOVABLE FRONT PANEL** . . . for ease of service, insures quick access to all mechanical parts.
- **SMALL FLOOR AREA** . . . requires only 14" x 14" of floor space.
- **CAPACITY BOOSTER** . . . precools incoming water, increasing capacity up to 90%.

Sell This Additional Feature

All seven models, a capacity for every need, have the Hermetically-Sealed Refrigeration System. All carry the 5-Year Protection Plan.

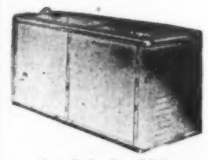
For franchise details check your local Westinghouse Supplier.

WESTINGHOUSE ELECTRIC CORPORATION • *Electric Appliance Division* • SPRINGFIELD 2, MASS.

Westinghouse Water Coolers

WITH THE 5-YEAR PROTECTION PLAN

DEALERS WANTED



BEV-KOLD WET-DRY ELECTRIC BEVERAGE COOLER

Model B 180

59½" long, 28⅜" wide, 34" high

Bottle Capacity

180 12 oz. upright, 220 12 oz. corded

THE BEVCO COMPANY

1512 PINE ST., ST. LOUIS 3, MO.

In Gas Ranges . . .

This is a NORGE year!

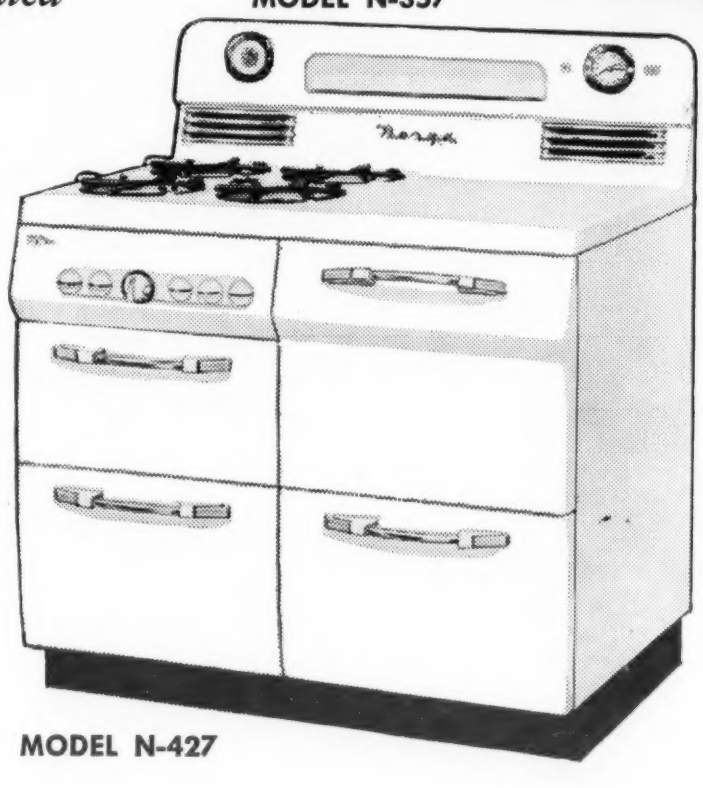
ONLY NORGE OFFERS A GAS RANGE WITH "CONCENTRATOR" BURNERS

MODEL N-357

This exclusive Norge feature is praised by homemakers everywhere, because it produces a faster, more efficient flame which is *concentrated* on the *bottom* of cooking utensils.

And these "Concentrator" burners are part of all three Norge gas range models. Norge Division, Borg-Warner Corporation, Detroit 26, Michigan.

A BORG-WARNER INDUSTRY

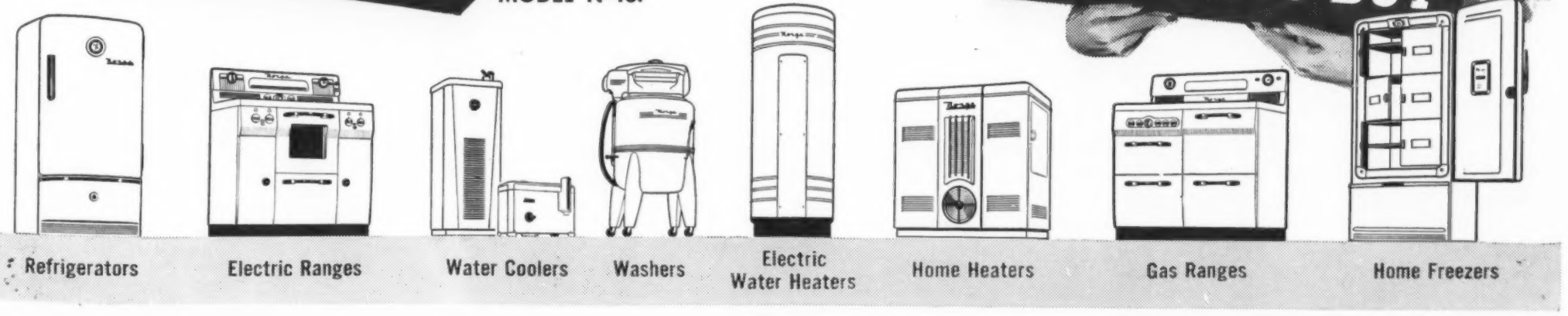


MODEL N-427

With these new Norge "Concentrator" Gas Ranges, home cooking takes on all the glamour of a fine art!—And that's why "The best dealer in town sells Norge."

MODEL N-407

Norge gas ranges, like all Norge products, are backed-up by aggressive national advertising in the country's leading magazines.



Refrigerators | Electric Ranges | Water Coolers | Washers | Electric Water Heaters | Home Heaters | Gas Ranges | Home Freezers

ASHVE Meeting--

(Concluded from Page 1, Column 3)

don't worry about spending as much as $2,500 for a car, and that if they can be interested in the heat pump, the cost alone may not be the deciding factor in convincing them to buy this type of heating.

The heat pump symposium took up all of one technical session of the society's meeting, several other papers covering various phases of heating and ventilating being presented at sessions. There were three papers on the subject of radiant heating.

In addition to the technical and business sessions, the 1,777 registered members, guests, and wives who attended this annual meeting also took in the heating and ventilating show, and such entertainment features as the welcome luncheon, a social hour Monday evening, and the annual banquet held Wednesday, Feb. 4.

At the final session Thursday morning G. L. Tuve was formally inducted as the new president of the society in ceremonies conducted by W. H. Driscoll, a former president of A.S.H.V.E. and vice president of Carrier Corp.

Also inducted were A. E. Stacey, Jr., first vice president; L. T. Avery, second vice president, and L. E. Seeley, treasurer.

A. V. Hutchinson and C. H. Flink were reappointed as secretary and technical secretary of the association respectively.

New members of the council, elected for three-year terms, include D. M. Allen, F. A. Hamlet, C. S. Leopold, and H. E. Sproull.

Five were elected to the committee on research: A. B. Algren, M. C. Giannini, F. W. Hutchinson, C. W. Johnson, and W. E. Zieber.

As part of the society business transacted during the meeting an amended constitution and set of by-laws was adapted. There were no drastic changes involved, merely slight alterations to meet the requirements of the New York state membership corporation law, according to Secretary Hutchinson.

It was announced also that Bretton Woods, N. H., has been selected as the site for the semi-annual meeting which will be held from June 21 through 23.

Higher Prices Ring Up Peak Wholesale Volume

WASHINGTON, D. C.—Due mainly to higher prices, wholesalers rang up a record dollar volume in sales during 1947, exceeding their 1946 sales by 15%, the U. S. Department of Commerce has announced.

Their sales for the year were estimated at $63,360 millions.

Electrical goods wholesalers were among those recording higher than 30% increases over 1946 sales.

The Commerce Department's estimates are based on figures supplied by nearly 3,000 wholesalers across the country.

I.C.I. To See 'Thermo-Matic'

DETROIT—G. W. Anderson, who was recently elected president of the Indoor Climate Institute, Detroit chapter, has announced that at the next meeting to be held Friday evening, Feb. 20, at the Rackham building here, there will be demonstration of the new Dole "Thermo-Matic" register.

Local Bolts from UE--

(Concluded from Page 1, Column 4)

the new union, composed mostly of typewriter repairmen, declared that as a result of the UE officials' refusal to sign these affidavits, "our local, among others, has been deprived of recognition, has been unable to negotiate contracts, and has been stranded without protection and the benefits of collective bargaining.

"The UE has followed every twist and turn of the Communist party since 1940 and its decision against compliance with the Taft-Hartley law has left us high and dry.

"We will not remain affiliated with a union whose Communist leadership attempts to deal with our employers without our knowledge and consent."

Conroy said that the new union has registered with the U. S. Department of Labor and the NLRB and has met all provisions of the Taft-Hartley law, including the signing of non-Communist affidavits by its officers.

However, Conroy noted, the union is still solidly against the Taft-Hartley law and would fight for its repeal.

Distributor Sues Globe, Maytag

CHICAGO—Charging that Globe American Corp. and Maytag Co., Inc., violated anti-trust laws by conspiring to create a monopoly in the distribution of "Dutch Oven" gas ranges, Thiele-Winslow, of San Antonio, Tex., filed suit in U. S. District Court here against the two firms for triple damages of $2,000,000 and costs.

Globe American, Kokomo, Ind., was identified in the suit as manufacturer and Maytag, Newton, Iowa, as buyer.

According to Thiele-Winslow, operated by Copartners Joe W. Thiele and Frank D. Winslow, Globe American and Maytag entered into a contract Sept. 19, 1945, which was "created to eliminate competition and to exclude all persons, except Maytag Co., from distribution of patented 'Dutch Oven' heat retained gas ranges."

Anti-trust laws were violated, the plaintiff charges, by agreeing to buy exclusively from one manufacturer, excluding and suppressing competition, fixing prices, giving corporate stock to favorite customers as rebate, furnishing services and facilities to favorite customers, and establishing an interlocking directorate and acquiring of corporation stock for monopoly.

Thiele-Winslow claims its damages comprise loss of profits:

1. On annual quota of 1,000 Dutch Oven gas ranges which Thiele-Winslow agreed to accept under written agreement Feb. 19, 1945.
2. On gas ranges for which Joske Bros. Co., as key dealer, placed an order whereby Thiele-Winslow became entitled to an amount equal to 5% of the net price to the key dealer.
3. On 160 gas ranges for which the 58 franchised dealers in the territory committed themselves in writing.
4. On 1,524 gas ranges which is the estimated sales per year.
5. On sales of gas ranges which Thiele-Winslow would have made during the period the defendants allegedly excluded the plaintiff from acting as a distributor of the ranges.

Majestic Bankruptcy Petitions Are Accepted by Federal Court

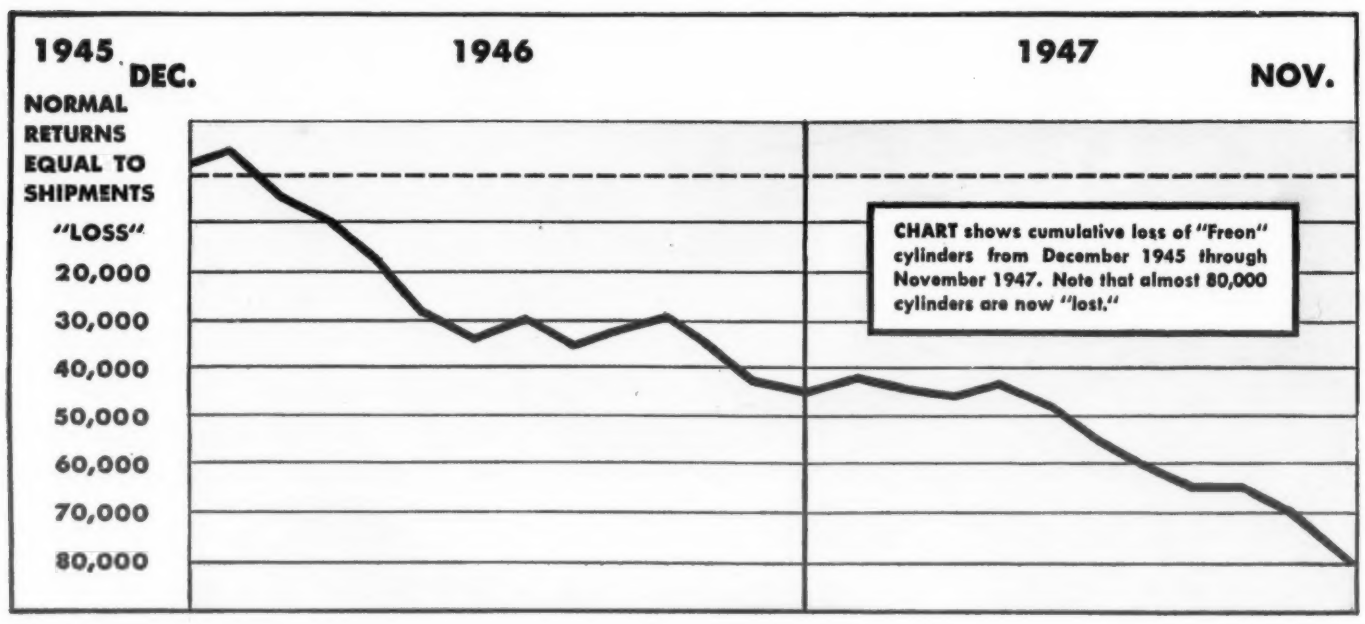
CHICAGO—Pending reorganization, Majestic Radio & Television Corp. and Majestic Records, Inc., will operate under supervision of Federal courts, it was learned here recently.

Bankruptcy petitions, filed here by executives of both firms, were accepted by Judge Philip L. Sullivan, who granted them permission to reorganize.

Although the petitions indicated that the two companies would be unable to meet debts as they mature, Attorney A. L. Schapiro informed the court that all the firms' liabilities would be paid in full by utilizing combined assets of $6 million.

"LOST"

80,000 "FREON" CYLINDERS



Since December 1945—when return of empty "Freon" cylinders equalled shipments—there has been a consistent shortage in returns. Today, that shortage has reached the alarming total of approximately 80,000 cylinders!

To continue shipping "Freon" to meet your current, spring and summer requirements . . . these "lost" cylinders *must* be returned to the "Freon" plant—NOW.

Only *you* can help ease this serious shortage. How? By looking around your premises NOW . . . by checking every cylinder *and* by returning every empty "Freon" cylinder immediately. Today, if possible.

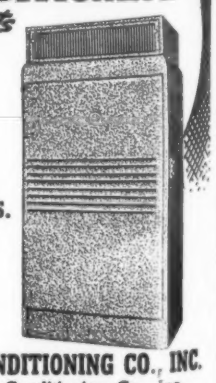
New cylinders are still in short supply, and only returned empties can bridge the gap. So take time out—now—to return every empty "Freon" cylinder. Full deposits will be refunded immediately.

Ship empty "Freon" cylinders to: Kinetic Chemicals, Inc., Carney's Point, N. J. Specify P.R.S.L. as the carrier.

Kinetic Chemicals, Inc., Tenth & Market Streets, Wilmington 98, Delaware.

KINETIC
FREON
REG. U. S. PAT. OFF.
safe refrigerants
"FREON" IS KINETIC'S REGISTERED TRADE-MARK FOR ITS FLUORINATED HYDROCARBON REFRIGERANTS AND PROPELLENTS

TYPHOON
SELF-CONTAINED UNITS
AIR CONDITIONING
For Small Budgets
TYPHOON AIR CONDITIONING



Sizes up to 7-tons.
Product of over 30 years of experience
TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
794 UNION STREET • BROOKLYN, N. Y

PURO
Electric
WATER COOLERS

BRANCHES IN PRINCIPAL CITIES
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440 LAFAYETTE ST., N.Y. 3, N.Y.
PURO FILTER CORP. OF AMERICA
DRINKING WATER SPECIALISTS FOR 50 YEARS

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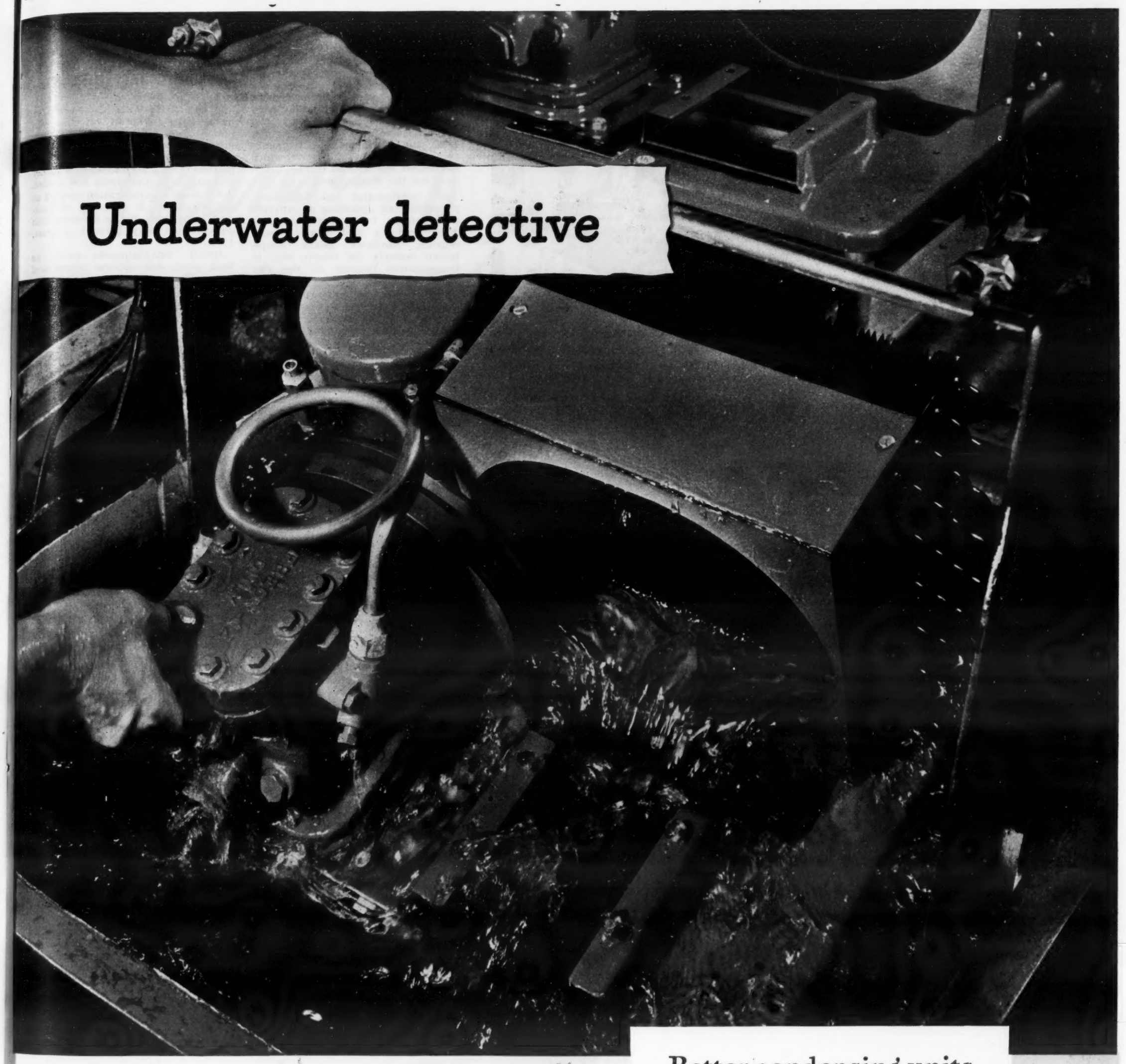
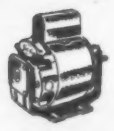


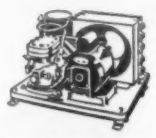
Better condensing units through

JACK & HEINTZ

Mass Precision


Electric Motors

Ball Bearings


Refrigeration Compressors

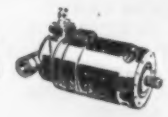
Eisemann Magnetos

To assure you of an absolutely tight condensing unit, throughout, Jack & Heintz gives it a final test by submerging it in hot water where pressure bubbles indicate the slightest leak. Add this to a score of tests applied individually to the compressor, condenser, receiver and other parts and you have one of the reasons why you can rely completely on J & H units.

The high precision of these tests is typical of every Jack & Heintz operation . . . to make sure that you get the best products that money can buy.

Aircraft Starters

Aircraft Generators


Aircraft Inverters

JACK & HEINTZ PRECISION INDUSTRIES, INC., *Cleveland 1, Ohio*

Added Refrigeration Helps Hospital Store 'Diet' Foods Properly

Food Service Is Streamlined by Larger Reach-Ins, Walk-Ins

ST. LOUIS—A perenially serious problem of the modern hospital—how to properly refrigerate the many various food items which go into special-diet meals for patients—has been solved in the $100,000 food service remodeling of St. John's hospital here with a Frigidaire 10-door, nine-compartment reach-in refrigerator.

The hospital has spent over a year in "streamlining" its food service operation. Formerly, like many other hospitals, St. John's served 400 bed patients and 300 institutional employes from a series of 11 small kitchens scattered at various points throughout the hospital, officials explained.

Now, however, all food service operations are consolidated at one point, with electric dumbwaiter service and an "assembly-line" conveyor table system for putting trays together.

This partial view of the kitchen at St. John's hospital shows the 10-door reach-in where special diet items are kept refrigerated.

In addition to three huge walk-in refrigerators in the basement, built with tile walls and quarry-tile floors, many new reach-in boxes for special purposes have been installed. Among these, the largest is the Frigidaire 10-door, reach-in refrigerator, which has solved special-food storage problems for the diet kitchen.

The refrigerator has nine compartments, all operating at different temperatures, for proper storage of dairy products, cold meats, cheese, relishes, sandwich fillers, soups, frozen desserts, ice cream, etc., at temperatures ranging all the way from 20° to 48° F.

Medically-treated, sugarless foods require far more refrigeration than others, according to Sister M. Edwarda, head dietician for the hospital, but through provision of a space for these in the refrigerator, it is possible to keep everything required for special diets at one location.

7% of G.I. Business Loans Apply Toward Operation Of Contracting Firms

WASHINGTON, D. C.—About 7% of the World War II veterans who obtained G.I. business loans are operating contracting firms as carpenters, painters, electricians, mechanics, plasterers, brick-masons, and other occupations in the crafts and trades.

Veterans Administration arrived at the proportion in a survey of business loans made during a four-month period from May through August, 1947.

Retail establishments—such as food, drug, and apparel stores and automobile sales agencies—are the most popular types of enterprises, accounting for about 30% of the veterans in business.

Service trades (beauty and barber shops, laundries, and the like) attracted the second largest group of 20%; followed in order by transportation businesses, 18%; professional and semi-professional pursuits (architects, engineers, lawyers, physicians, and others), 7%; sales agents, 6%; manufacturing, 5%; wholesalers, 4%; finance, insurance, and real estate, 2%; and recreation and amusement businesses, 1%.

Average size of business loans made during the survey period was $3,200. Most of the loans, or 87%, were non-real estate loans averaging $2,600; the remainder were realty loans averaging $6,900.

The survey disclosed that 35% of the business loans were for the establishment of new enterprises. The rest involved purchases of going businesses, or buying into going concerns.

Commercial banks made 91% of all loans closed during the time of the survey. Mutual savings banks accounted for 4%, and miscellaneous lenders for 5%.

A study of the amortization of the loans revealed that 42% were made repayable in less than 2½ years; 32% in from 2½ to 5 years; and 26% in 5 years or longer.

Under the G. I. Bill, VA guarantees the lender against loss for 50% of the total loan, up to a maximum guarantee of $2,000 on non-real estate loans and $4,000 on real estate loans.

More than 85,000 G. I. business loans, totaling $273,000,000, have been approved in the more than two years the program has been in operation.

Schultz Associates To Handle McCray Line In New York Area

KENDALLVILLE, Ind. — McCray Refrigerator Co. here has announced the appointment of Schultz Associates Co. of Long Island City, N. Y. as distributor for McCray food store equipment in the metropolitan New York area.

Schultz Associates is owned and headed by Barnett Berch and manufactures and designs food stores and food store equipment.

P-50 Double Duty Display Case. Porcelain exterior. Stainless Steel interior. 6' & 8' sizes.
JORDON 1948 line gives you every model you need for a COMPLETE SELLING JOB . . . . .
FROZEN FOODS SELF SERVICE
Frozen Food Merchandisers with or without Illuminated Superstructure.
Double Duty Display Case of Stainless Steel. Counter Height. 6' & 8' sizes.
Full Vision Cases. 4' & 8' sizes. Porcelain front.
Wall type Display Case with Porcelain front. 6' & 8' sizes.
JORDON
Every JORDON Refrigerator Is A Real FEATURE-LEADER
A Full Line of REACH-INS In All Temperature Ranges. 20 Cu. Ft. to 75 Cu. Ft. All Finishes.
★HEAVY DUTY ICE MAKERS
★TWO TEMPERATURE MODELS
★ALL LOW TEMPERATURE MODELS
★MODELS WITH FREEZER-LOCKER
★MODELS WITH MEAT HOOKS
The Sensational Success—JORDON 14/6 REFRIGERATOR
★DRY-COLD BEVERAGE COOLERS
★HOME AND FARM FREEZERS
SELL MERCHANTS OF EVERY SIZE — IN EVERY FIELD — FROM A COMPLETE MATCHING LINE
The JORDON merchandising plan is based on demonstrated facts:
(1)—That you can't do a complete selling job with only half a line.
(2) That you can't do a thorough selling job with a split line.
JORDON puts you in the position of satisfying every demand, from the corner delicatessen to the flashy super-market, from one, complete, fully matched line.
The JORDON national dealer organization is prosperous, aggressive, and leading in commercial refrigeration sales in every community and here's the reason:
Every JORDON model represents top quality, sound engineering, smart styling—and every JORDON model carries the backing of a responsible manufacturer with long experience and a national reputation.
LARGE SCALE ADDITIONS TO THE JORDON PLANT—NOW COMPLETED AND IN OPERATION—PROVIDE ADDITIONAL PRODUCTION FOR NEW JORDON DEALERS. MANY NEW MODELS TO BE ADDED TO CURRENT LINE. IF YOU ARE INTERESTED IN MAKING MORE MONEY IN '48 DON'T FAIL TO GET ALL DETAILS NOW.
WRITE WIRE PHONE for data sheets
Jordon
AMERICA'S MODERN COMPLETE LINE
JORDON REFRIGERATOR CO.
Factory and Sales Division
58th ST. and GRAYS AVE., PHILADELPHIA 43, PA.
PLANT: PHILA., PA.
CABLE: "JORDONREF"
BElgrade 6-4510

Lipman
AUTOMATIC REFRIGERATION
For all types of refrigeration installations. Available in sizes ranging from ¼ thru 40 H.P.
LIPMAN units are available for use with Methyl Chloride, Ammonia and Freon 12 refrigerants. Recognized for outstanding economy and dependability, the name of LIPMAN has become the "buy" word in the commercial refrigeration field.
GENERAL REFRIGERATION
DIVISION
YATES-AMERICAN MACHINE CO., Beloit, Wisconsin

Thanks for Meeting us at the Cleveland Show

● We wanted you to see these beautiful, powerful and quiet Fedders Room Air Conditioners.

Your interest in them was not only gratifying but inspiring!

As one distributor stated, the features of these new ½ & ¾ HP Fedders Units represents a rebirth of this branch of the industry.

Fedders Unit Air Conditioners open up America's vast household market in addition to the commercial field.

Distribution is being set up on a selected specialized basis. If you did not obtain one of our "Get Acquainted" Distributor Questionnaires at the show, write for your copy now.

E. A. Bonneville

SALES MANAGER
UNIT AIR CONDITIONER DIVISION

FEDDERS-QUIGAN
CORPORATION BUFFALO 7, N.Y.

INSIDE DOPE

by GEORGE F. TAUBENECK

(Continued from Page 1, Column 1)
more important than an avalanche of national advertising.

Confidential Statistics

"Thorough dealer coverage" is not enough, however, this executive will tell you. The sales manager who can point with pride to a large map of the United States dotted with thousands of pins locating his dealers has no right to sit back and congratulate himself.

True, the business may roll in for a time—but if the sales manager will study the pattern of the orders his firm tabulates, he may make a surprising discovery, to wit: A heavy proportion of all these orders will come from a relatively few dealers.

Analyzing confidential figures on 1947 operations furnished by one of the largest manufacturers in the industry, editors of AIR CONDITIONING & REFRIGERATION NEWS found that 8.7% of the total number of dealers made 40.2% of the sales; that 14.7% of the remaining dealers accounted for 36.9% of the sales.

A Place In the Sun

Since that survey was made the number of dealers has contracted, and the percentage of business done by the remarkable few seems likely to increase, according to sales managers of a number of the leading manufacturers.

Today, as never before, it is true that to get a place in the sun a refrigeration manufacturer must have his share of the good dealers.

Indications are that in 1948 and 1949 a battle royal will be staged among field men to line up the proven dealers. That probably means that multiple dealerships—one good dealer handling several makes—will decrease. It probably means also that the specialty dealer will become more important.

It surely means that extensive coverage will not be the fetish it once was; that intensive cultivation of the dealers who really do a job on refrigeration and home appliances will be the biggest task at hand.

As never before, manufacturers are scrutinizing the dealer lists of their distributors. No longer is it enough that the distributor have a round number of 300 dealers—or whatever number was once-upon-a-time deemed adequate for the territory which that distributor serves.

No longer will wholesalers be permitted to hand over a valuable major appliance franchise to a dealer simply because he is a good outlet for tires, batteries, clocks, toasters, or radios—and the distributor doesn't want to offend him by refusing to give him the opportunity for a little extra rake-off on the sale of a few refrigerators and other "demand" items.

By 1949, at least, manufacturers are going to insist that the dealers who represent their line be worthy dealers. One poor dealer in a town can make it awfully tough later on for the conscientious dealer who tries to follow him.

By that time the nation will have been pretty well combed for top-notch specialty dealers. Almost every retailer or merchant who could possibly be considered material for an appliance dealership will have had his chance at one.

The good dealers are becoming well known. And it is to them that the industry is looking in 1949 and the years following.

A good product? Imperative. A sound merchandising program? Of course. National and local advertising? To be sure. But good dealers! That's the most important of all for the manufacturer.

What's Ahead?

At the request of Kirby, Block & Co., Inc., a large New York buying firm, 200 retailers in all parts of the nation peered into the crystal ball to make a few predictions about the retail business in 1948.

Consensus of what they saw, according to the buying organization, was this:

Retail business will continue to boom, but inflated cost-of-living essentials will probably bring a certain amount of sales resistance. (However, the merchants feel, this can be overcome with a bigger supply of merchandise and more aggressive promotion.)

Increases ranging from 5 to 20% should be registered in hard lines, with major appliances and housewares showing good gains.

General department stores ought to do 5% better in January, 2 to 10% better in February, and 10 to 15% better in March. But the early Easter may cause a decline of around 15% in April.

Specialty stores may experience decreases the first two months of the year, but business should be good in March.

Dollar inventories may be generally lower. Most stores will be trying to effect higher turnover, and will be controlling inventories better.

As for basic buying policies, the majority of retailers will be on the lookout for quality at lower prices, insist on definite delivery dates, accent the more promotable goods, show a preference for national brands and to resources which can deliver, and buy earlier for the earlier Easter.

In order to prevent prices from increasing, many retailers may take shorter mark-ups. Some probably will drop certain price lines in an effort to average mark-ups on fast-moving items.

These means to protect net profit will be tried out: more cautious buying to reduce mark-downs, reduction of overtime, use of more part-time employes, employment of better help at higher salaries to boost production per dollar of selling cost, a planned expense budget based on planned sales, closer supervision of service employes, more vigorous promotional efforts to produce more business per dollar of overhead, and investment in machines to speed up operations and reduce personnel.

Commenting on results of the survey, John Block, head of Kirby, Block & Co., offered the opinion that the ultra-conservative buying policies which held back business in the spring of 1947 probably will not be followed in 1948—"certainly not in the same degree."

Personality Traits to Look For In Hiring Salesmen

Are there specific characteristics which distinguish the successful salesman from his more commonplace brother? Tests submitted to thousands of salesmen representing every conceivable branch of the sales field provide an emphatic YES to this question.

This survey discloses that men of a forceful and somewhat dominating personality have the most aptitude for sales work. Nevertheless, many superior salesmen employ the "good listener" technique with significant results.

The belief that "good mixers" *invariably* possess personality traits which enable them to sell is a fallacy. A man who excels in the social amenities may forget entirely his selling objectives while engaging in gracious and friendly parley with prospective buyers. A man who isn't a "good mixer," however, seldom makes the grade in this profession.

Knowledge and accuracy are important factors in the makeup of a good salesman. He knows that his performance in closing sales is not merely a hit-and-miss affair, largely dependent upon so-called "luck." Rather, it is the result of a careful study of the principles of sales strategy, technique, and human psychology.

If a salesman possesses these abilities, in addition to the finesse of being able to comprehend the viewpoints of both customer and production manager, then the field of selling is his nut to crack.

Quoting Abraham Lincoln

It is idle to speculate upon what Abraham Lincoln might have said or done were he alive today; but it is also excusable to turn to some of Lincoln's thoughts on such controversial subjects as "labor," and read them with present circumstances in mind. The particular thoughts quoted here were contained in some informal remarks which he made to a delegation of New York working men in March of 1864.

They do not comprise formal economic and social philosophy. They may not be geared to today's thinking, but they do make interesting reading, nevertheless. Here they are:

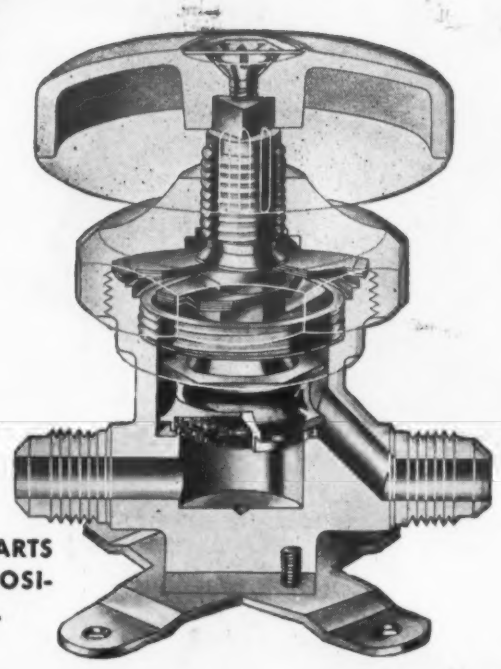
"The strongest bond of human sympathy, outside of the family relations," Lincoln said, "should be one uniting all *working* people, of all nations, and tongues, and kindred.

"Nor should this lead to a war upon property or the owners of property. Property is the fruit of labor; property is desirable; is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise." (That would get him called a conservative, or worse.)

"Let not him who is houseless pull down the house of another, but let him work diligently and build one for himself, thus by example assuring that his own should be safe from violence when built."

FEWER SERVICE "CALL BACKS"

• Service "call backs" on installation work can eat into profits. Eliminate valve trouble and frequent servicing with Weatherhead Packless Valves.



ONLY 4 MOVING PARTS FOR LONG LIFE, POSITIVE CONTROL.

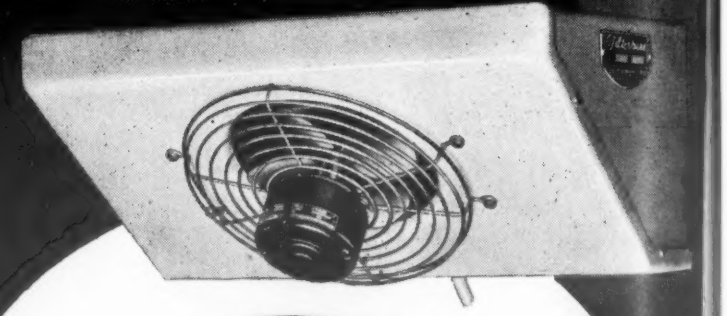
Look Ahead with

Weatherhead

The Weatherhead Company • Cleveland 8, Ohio

CLEVELAND • NEW YORK • DETROIT • CHICAGO • LOS ANGELES

LESS SPACE • MORE COOLING



Filterpure

Model C Ceiling Unit is only 8½" High. Refrigerated air is exhausted against the back wall, resulting in positive circulation to the bottom—Equipped with air purification—Peak performance for Reach-ins, Florist Boxes, Dairy Cases, etc. Made in 3 sizes to balance ¼, ⅓ and ½ H.P. compressors.

Sold by Leading Refrigeration Wholesalers

BETZ CORPORATION

HAMMOND • INDIANA

From Man Who Knows:

Serviceman, User Both Get Blame for Poor Care of Units

SWISSVALE, Pa. — "The attempt to put in just 'something' to handle a commercial refrigeration service job for the present when there are parts available if servicemen would dig a little for them, is one of the biggest mistakes being made in refrigeration service practices today," says L. J. Polansky, Lutz Refrigeration Service, 2045 Monongahela Ave.

Polansky should know, for he has been in the business since 1937, with engineering training, and for more than a year has taught a commercial refrigeration class five nights a week at a Pittsburgh trade school.

"One of the biggest defects resulting from service competition," says Polansky, "is underestimating the size of a unit. Competition is keen. Service people are rushed. So they put in anything momentarily to handle the job.

"Among the undesirable things done to cut costs," says Polansky, "servicemen and owners try to squeeze too many fixtures onto one compressor. Only thing we can do about this is to put on extra fans to avoid burning out the motor. In the last three months we have run into dozens of these jobs.

"Motors," says Polansky, "burn out mostly because wrong fuses are used. A ¼-hp. motor operating on 110 volts will be found operating with a 30 ampere fuse. This is ridiculous. I recommend an 8 ampere fuse for a split-phase motor.

"People put radically inferior oil into their motors. Sometimes we run into such stuff as salad oil, 3-in-1 oil, or varnish. That stuff isn't very good for fractional horsepower. Owners put it in, and then wonder why the motor gets 'stuck up.'

"We recommend No. 30 automobile oil for these motors," says Polansky, "for you ought to have a mineral base. If the motor is new, use No. 20 oil to break it in; then use No. 30.

"Owners can cooperate on commercial refrigeration by paying more attention to their maintenance. Clean an open-type condenser every three-four months, more often if you are in a smoky locality, so air can get in and the motor won't be overloaded.

"Owners should oil the motors properly. They think a few drops is sufficient, but a pressure lubricator (oil can with pump) should be used. Every six months is sufficient.

"Units shouldn't be put in a space so confined they don't get ventilation and become a fire hazard. Too much space isn't necessary, but there should be free circulation. We find quite a few jobs, even on bottle boxes cluttered up with paper and bags which restrict the flow of air."

Corbett To Manage Penn Electric Rochester Office

GOSHEN, Ind.—A new sales office supervised by J. E. Corbett at 2610 Monroe Ave., Rochester, N. Y., was recently opened by Penn Electric Switch Co.

R. H. Luscombe, Penn sales manager, stated that the Rochester office is a division of the company's New York branch which is managed by N. E. Jennison. This move was made to give more efficient service to Penn's customers in upper New York state.

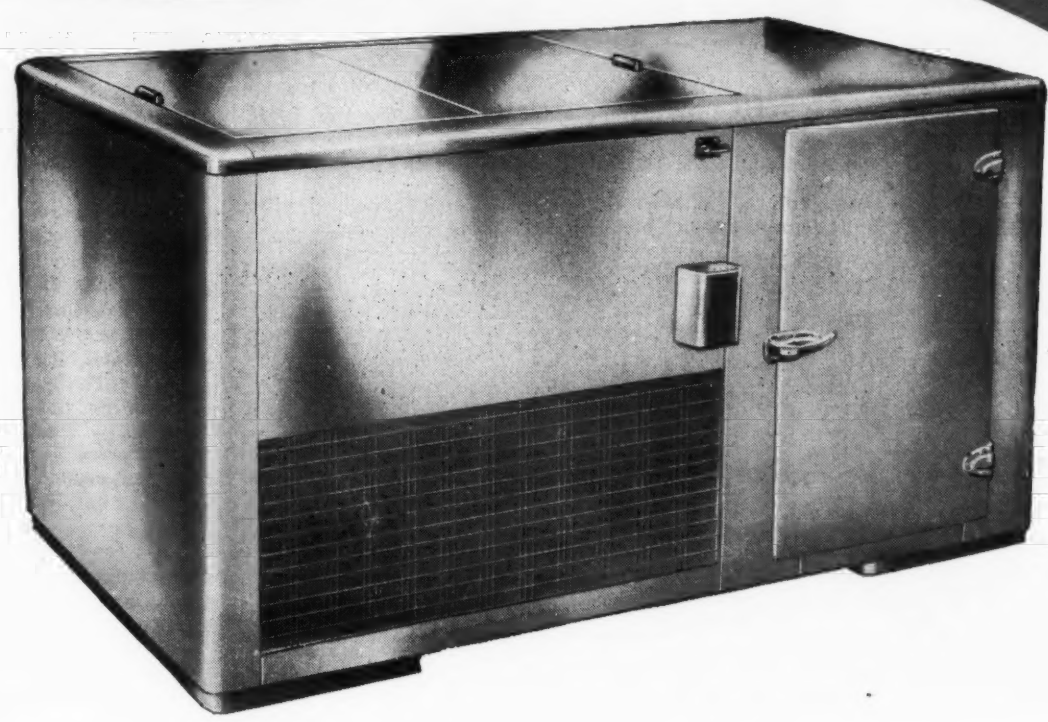
Corbett formerly covered this territory from the company's New York office.

Roessler Gets Special G-E Air Conditioning Assignments

BLOOMFIELD, N. J. — E. W. Roessler has been appointed to the staff of General Electric's manager of engineering to undertake special technical assignments for the air conditioning department, W. E. Johnson, manager of engineering at G-E's Bloomfield plant, has announced.

Roessler came to G-E in 1928 as a test student and was one of the first engineers assigned to the air conditioning department when it came to Bloomfield in 1935. In 1947 he was named engineer of the newly established technical services engineering division.

ONLY ARTKRAFT HAS A COMBINATION FOOD and BEVERAGE COOLER THAT CAN BE OPERATED WET OR DRY



The ARTKRAFT BEV-FOOD

A High Quality, Self-Contained "Plug-in" Unit

- RETAILS AT ONLY $385 (f.o.b. factory)
- OFFERS THE LOWEST COST PER CUBIC FOOT USABLE REFRIGERATION SPACE IN THIS SIZE RANGE.
- EACH COMPARTMENT CAN BE USED ENTIRELY FOR DRY REFRIGERATION
- TOP OPENING PREVENTS "SPILL-OUT" OF COLD

IDEAL FOR:

RESTAURANTS	HOSPITALS
ROADSIDE STANDS	SODA FOUNTAINS
DAIRY STORES	BOWLING ALLEYS
HOTELS	MEAT MARKETS
TAVERNS	DELICATESSENS
FISH MARKETS	CANDY STORES
FACTORY CAFETERIAS	DRUG STORES

SPECIFICATIONS:

Sealed cabinet: 65⅜" x 38" x 29½"
Solid 3" insulation—Vermin-proof
Top compartment: 35¾" high x 20¾" wide x 15½" deep (Slightly over 6½ cu. ft.)
Food compartment: 21¼" wide x 28⅞" high x 20¾" deep (Slightly over 7½" cu. ft.)
Total storage capacity: 14 cu. ft.
Finish: Exterior—Silver Blue
Interior—Porcelain enamel
Top and 2 sliding covers, stainless steel
Condensing Unit: ¼ H. P., twin-cylinder air cooled Equipped with Tecumseh, Universal Cooler, or Copeland unit
Motor: ¼ H. P., 60 cycle, single phase, 1750 r.p.m., 110 volts, capacitor type
Refrigerant: F-12 Freon
Automatic light in food compartment
8-point cold control

DEALERS:

Ask your distributor for this great profit-maker—or write us for his name. Distributed in many areas by G. E. Supply Corporation.

DISTRIBUTORS:

Write for details of franchise for open territory

The Artkraft Manufacturing Corp.

Quality Products for more than a Quarter of a Century

200 KIBBY ST., LIMA, OHIO, U.S.A.

THIS COUPON FOR YOUR CONVENIENCE

THE ARTKRAFT MANUFACTURING CORPORATION
200 KIBBY ST., LIMA, OHIO, U.S.A.

☐ Please send the name of the BEV-FOOD distributor in this territory

☐ Please send details of distributors' franchise

NAME.....

FIRM.....

CITY.....

Traveling Cutaway Exhibit Rouses Customer Interest by Dramatizing Appliances In Action

Two attendants stand before a cutaway refrigerator and a snow-making demonstrator (home freezer).

Calrod loading machine (left) and switch tester were displayed to show how Hotpoint ranges are manufactured.

CHICAGO—An "itinerant hall of science" which dramatizes appliances in action by enabling consumers to look inside cutaway and engineers' models will be used by Hotpoint, Inc. to help its large key dealers "tell the manufacturer's story."

Capitalizing on the human urge to "know what's inside an appliance," Hotpoint introduced many of its new display models at the recent housewares exposition at the J. L. Hudson Co., Detroit department store. The "hall of science" is on display at Strawbridge & Clothier, Philadelphia, from Feb. 16 through Feb. 21.

Although the action displays were specifically designed for Hudson's exposition, "dealer and consumer reaction was so favorable that we decided to use the exhibit as a unit to tie in with other large key accounts," Edward R. Taylor, Hotpoint's merchandising manager, observed.

Arrangements are now being made to show the itinerant displays at the Electrical Institute of Boston, April 3-19, Taylor said, adding that wherever possible the new exhibits would be featured together as a unit. It is possible, he said, that a number of the most popular displays will be made available later on for individual showings.

In the course of the two weeks' showing of Hudson's housewares exposition, more than 400,000 visitors inspected a dozen major appliance exhibits which included Hotpoint displays ranging from an actual Calrod loading machine to a snow-making demonstration with a home freezer.

Drama is added to the demonstration of this plastic tub washer by making use of colored soap chips. Part of a large traveling action-appliance display now available to dealers, the washer is flanked by cutaway sections of washer and wringer mechanisms.

Hudson officials said that visitors' comments and queries indicated that action displays are effective in telling the manufacturer's story about his product. The need for educational displays of this type becomes increasingly apparent as appliances incorporate more and more automatic and labor saving devices, it was said.

This year's exposition emphasized "live" exhibits because traffic in former shows was heaviest around those displays which involved some sort of motion or practical demonstration, said the Detroit store men. This attention, it was noted, proved that customers were "intensely interested" in specifications and the interior working parts of appliances.

In evaluating the new Hotpoint exhibits, Taylor said that the homemaker is no longer satisfied with casual sales "jargon" and that many customers were particularly interested in seeing the internal function of some of the products they already have in their own homes.

Burton Ditch, Hotpoint home laundry equipment field specialist, and John Lindsay of the commercial engineering department, who served as attendants at the exposition, declared that improved lighting and other refinements will be incorporated into the new displays for future showings.

Highlights of the Hotpoint exhibits include a heating position test for electric switches, using a number of electric light bulbs. The device demonstrates the various settings of heating controls used on the electric ranges. This test is similar to those conducted at the factory where switches are tested a minimum of 60,000 times, equivalent to 15 years of actual operation.

Promoting Hotpoint electric water heaters is an exhibit which features a water heater cutaway, a thermostat actuated by a heating lamp, and the wrap-around pressurized bands. All parts of this exhibit are designed to dramatize the "Magic Circle" heating principle.

An automatic dishwasher with a plastic front is mounted on a large display board to demonstrate by actual operation the 13 steps in the washing, rinsing, and drying process. Each step is identified by the lighting of a descriptive sign. A cutaway Disposall with a glass drain tube permits customers to see how waste material is converted to a pulverized substance.

Other displays include a snow-making demonstration with a home freezer, and a cutaway refrigerator showing such features as Fiberglas insulation, the Bonderized steel exterior, the automatic door latch, and acid resisting liner.

The itinerant exhibits will also include complete kitchen arrangements and kitchen planning aids.

Here customers are able to "look inside" a Disposall to see how it functions under actual operating conditions.

Not by chance do so many engineering experts turn to the Raytheon Capacitor Motor for applications such as fans, blowers and torque motors!

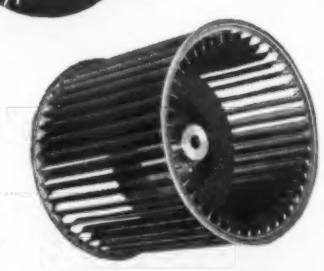
Wherever extremely high efficiency must be packed into the most limited spaces—there you'll find this beautifully engineered little motor. A veritable jack-of-all-trades and master of them all, the Raytheon Capacitor Motor is supplied with special mountings—as well as with single and double shaft extensions. Write or wire for all the facts!

RAYTHEON MOTOR MODEL 340
The CAPACITOR. Comes in 1/50 to 1/25 H. P. ratings. 3½" outside diameter. Speeds—1,700 and 3,400 RPM.

RUSSELL ELECTRIC COMPANY
350 West Huron Street • Chicago, Illinois

LAU Moves Air

NEWEST DEVELOPMENT IN BLOWER WHEELS



Years ahead of any wheel on the market, the new Lau Series "A" blower wheel has proved its strength and performance, both in rugged tests and actual use. Featuring center-suspension, which is far superior to other types of construction. Deep blades, scientifically pitched, are mechanically locked to center disc. Precision balanced . . . all parts die stamped. Single and double inlet wheels 5" to 30" diameter for oil burners, stokers, furnaces, air conditioning units.

THE LAU BLOWER COMPANY • Write Dept. "R" DAYTON 7, OHIO
WORLD'S LARGEST MANUFACTURER OF FURNACE BLOWERS

Conditioning Specified For New VA Hospitals

MINNEAPOLIS — Two thirds of the hospitals now under construction in the Veterans Administration's multi-million dollar building program will use Minneapolis-Honeywell Regulator Co.'s automatic temperature controls, according to Bern C. Benson, manager of the concern's hospital controls division.

Topping the list is the Franklin Delano Roosevelt hospital at Peekskill, N. Y., largest building in the VA program. Other hospitals in which Honeywell controls are specified are in Sioux City, S. D.; Minot, N. D.; Grand Junction, Colo.; Lebanon, Pa.; and Fort Hamilton, N. Y.

Benson said that the use of automatic temperature controls in hospitals was receiving a big impetus through the VA program. Air conditioning, untried in hospitals at the end of the World War I, has been specified by the VA for all operating suites, laboratories, X-ray departments, and recovery units in new projects.

Partial air conditioning also is required in neuropathic seclusion rooms and all single rooms with special equipment for allergies.

Year-Round Conditioning Costs User 1 Cent per Hour

KANSAS CITY, Kan.—At a cost of only one cent per hour, Harry O. Davis has maintained an even 78° F. temperature in his home here all year-round by using Chrysler Airtemp summer and winter air conditioning units.

Davis, in a letter to Chrysler Airtemp, stated: "Every window in the house is sealed shut and the thermostat is set at 78° F. day and night, summer and winter.

"The equipment has been operating through two cooling and one heating season and has never failed to maintain the above temperature. The cost has averaged one cent an hour over a year's time."

The equipment used consists of an Airtemp model G-10 gas fired winter air conditioner and a model 3-RSCD residential summer cooling unit.

Davis' six-room home is constructed of cinder block and cement and is valued at $25,000.

J. J. McCormick Represents Philadelphia Distributors

PHILADELPHIA — Announcement of the appointment of J. J. McCormick as special representative in central Philadelphia has been made by Albert E. Hughes, a partner in Philadelphia Distributors.

McCormick has formerly served with the Frigidaire sales organization and was at one time sales manager for the local Kelvinator distributorship, the announcement stated.

Home Pasteurizer To Appear Soon

LINCOLN, Neb.—A new type of electric appliance designed for use by farm wives will soon be making its appearance on the market, according to Arnold E. Barager, associate professor of home economics at the University of Nebraska College of Agriculture, who is doing research on the new appliance—a milk pasteurizer for home use.

Manufacturers plan to put the appliance on sale in the near future, and Prof. Barager expects to have his experiments completed within a few weeks.

The home appliance expert is experimenting with three different types of pasteurizers, the smallest of which holds a gallon of milk, and the largest seven quarts. Although they differ in size and mechanical processes, the three appliances are alike fundamentally, being electrically controlled and heated, the heating element and the automatic thermostat being located in the bottom of the pasteurizers, and all light enough to be easily carried and conveniently used in the kitchen.

The smallest pasteurizer is covered with porcelain and the container for the milk is of aluminum. It has an automatic control which keeps the proper temperature and regulates the amount of time required. Milk is poured directly into the pasteurizer and heated directly by electricity.

The second appliance holds a gallon and a half of liquid and has a water bath which surrounds the aluminum milk container. Outside covering is of porcelain. Water is first put into the bath and heated. A light flashes when the proper temperature is reached and this is a signal for pouring the raw milk into the container. The control is set, and the light flashes again when pasteurization is completed. The hot water then is drained off and cold water introduced to cool the sterilized milk. There also is an automatic plunger to agitate the milk for promotion of complete pasteurization.

The third pasteurizer accommodates milk in bottles, thus reducing the amount of handling necessary after pasteurization is completed, as well as providing sterilized containers for the milk. The machine holds seven quart bottles.

Purpose of the new appliances is to protect public health. Present pasteurization methods are impractical for home use and require constant watching of time and temperatures, Professor Barager pointed out. As a result, many farm families consume only raw milk, thus encouraging spread of undulant fever (brucellosis).

The Nebraska health department has compiled figures showing the prevalence of this disease has increased in the state from 35 cases in 1946 to 95 cases in 1947. Most cases result from direct contact with the infected cow, the health department reports, but it is estimated that milk and other dairy products have accounted for 15% of undulant fever cases in Nebraska.

Derry Sees Cooling Market Of $160-290 Million

BOSTON—An annual market of $160-290 million is in prospect for the air conditioning industry during the next three years, predicts Gardiner C. Derry, general manager of the Westinghouse Sturtevant Division.

Addressing the first postwar conference of Westinghouse air conditioning distributors, he forecast a bright future. "Air conditioning," Gardiner declared, "is the nation's newest big market and its brightest opportunity."

La Crosse Cooler Appoints Melvin Pine & Co. Export Mgr.

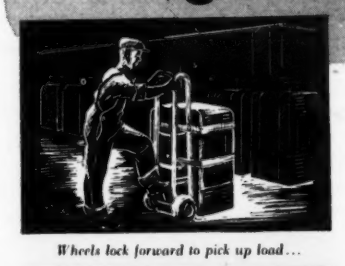
LA CROSSE, Wis.—The La Crosse Cooler Co. here has announced the appointment of Melvin Pine & Co., 80 Broad St., New York City, as export manager.

A. Israel and W. F. Milligan of the commercial refrigeration, air conditioning, and heating departments are supervising the sales promotion and development work.

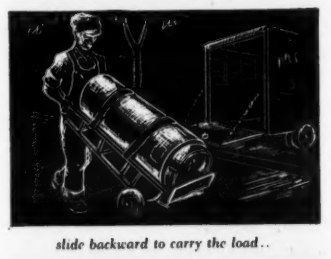
Controls Firm Organizes

LOS ANGELES—Refrigerant Control, Inc. has been formed in Los Angeles County, with 5,000 shares of no par value capital stock, to manufacture, sell, service, promote, develop, and improve refrigeration systems. Principals are: Evan M. Blanchard and Dwight Prouty, Jr., both of Pasadena, Calif.; and Earle W. Nessler of Hollywood.

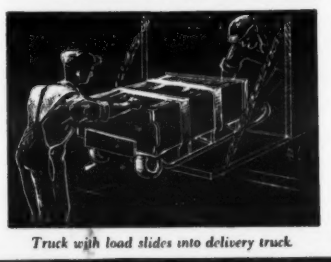
Easload CUTS MOVING COST 60%



Wheels lock forward to pick up load...



slide backward to carry the load..



Truck with load slides into delivery truck

WITH the Easload Appliance truck, Lind Plumbing & Heating Co., Cumberland, Ky., now use but 2 men in place of 5 to transfer 120 gallon electric water heaters. They also save 25% in time. "The Easload Appliance Truck," they write, "cuts our moving costs 60%."

Easload is perfectly balanced to carry the load on heavy rubber tire wheels. It protects the load from damage. It's built to go up and down steps, in and out of delivery trucks.

Learn more about this modern appliance truck. See how it can save you labor and time... Write today for free literature.

COLSON EQUIPMENT & SUPPLY CO.
1317 WILLOW STREET LOS ANGELES 13, CALIFORNIA

YOU GET THE BENEFITS OF
The Finest Machine Tools
IN EVERY CONDENSING UNIT PRODUCED BY
UNIVERSAL COOLER

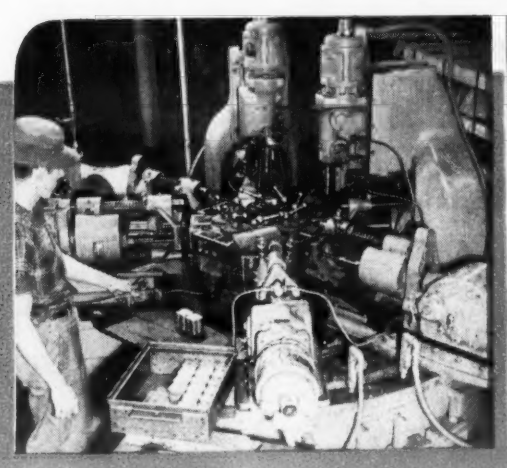
Fine, Modern *Specially Designed* Tools Mean:

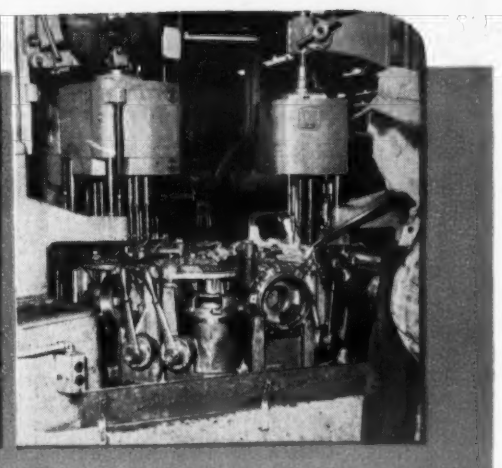
- Closer tolerances than would be possible with ordinary machines.

Economies not possible except where modern machinery is used in mass production.

Uniformity of product, essential to uniform dependability of condensing units.

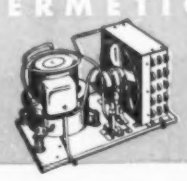
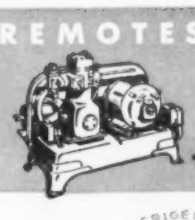
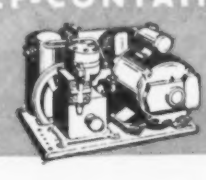
It takes resources to provide costly equipment. Yet, spread over big volume production, fine tools effect real economies that are passed on to you.





A few of the many modern machine tools used to produce U.C. Condensing units.

Write or wire today—learn how your refrigerating problems can be solved—the Universal Cooler way.

HERMETICS 1/8 H.P.  TO 3/4 H.P.
REMOTES 1/4 H.P.  TO 15 H.P.
SELF-CONTAINED 1/6 H.P.  TO 3/4 H.P.

UNIVERSAL COOLER
1922—1948 . . 26 YEARS OF PROGRESS
DIVISION INTERNATIONAL DETROLA CORPORATION
MARION, OHIO • BRANTFORD, ONTARIO

in BEN-HUR Farm and Home Freezers

1. Complete Line to Fit ALL Home Needs.
2. Extra Value in precision-engineered sales features.
3. Powerful National Advertising—over 6 million readers regularly.
4. Nation-Wide Distribution—the best dealers everywhere.
5. Nation-Wide Reputation—stems from thousands of satisfied users.
6. Complete Selling Material—sales manuals, display, direct mail and advertising material.

Above — BEN-HUR 9 cu. ft. Model 197. Others 6, 12½, and 18 cu. ft. sizes. Capacities, to 900 lbs. of frozen food.

Some Choice Territories Still Open. Write for YOUR Sales-Opportunity Story!

BEN-HUR MFG. CO. Dept. AC 634 East Keefe Ave. MILWAUKEE 12, WISCONSIN
BEN-HUR FARM and HOME FREEZERS
HEALTHFUL LIVING THROUGH FROZEN FOODS

With Trailer-Display Room Brown & McGee Brings Home Freezer To Farm Wife's Door

By John O. Sweet and George M. Hanning

JACKSON, Mich.—A custom built house trailer, set up as a portable appliance display room, helped Brown & McGee, local commercial refrigeration and home appliance outlet, sell 125 home freezers during 1947.

By using the trailer, Brown & McGee was able to bring freezers and other appliances right to the doorsteps of busy rural housewives in this area and get them acquainted with the freezers without their having to make a time consuming-trip to town.

The trailer was purchased for the specific purpose of promoting home freezers in rural areas. It has a 15 ft. all-aluminum body on a steel frame and features a specially constructed 32 in. door—wide enough to accommodate all appliances. It was built by a Detroit trailer manufacturer and put into operation last summer.

Inside the vehicle, a 12-cu. ft. Harderfrez spans the front end. A 6 cu. ft. freezer stands at the rear.

Between these are a clothes washer, ironer, electric pump, vacuum cleaners, and an apartment size range. All are bolted to the floor to protect against rough riding.

In the freezer compartments, a variety of small appliances, such as irons and toasters, are stored. These small items, always popular with farm wives, help pay for the gasoline and cover the cost of the trip.

A 200-ft. extension cord carried in the trailer permits demonstration of all appliances aboard. All that is necessary to bring power to the trailer is to plug into an electrical outlet at the farmer's house. Inside the trailer, electrical outlets in the walls are convenient to all appliances.

Fred R. Brown, whose main interest is home appliances, jockeys the trailer around the countryside himself. George A. McGee, his partner, concentrates on commercial refrigeration and store equipment.

The firm, a three-year-old venture, is a distributor-dealer for the Tyler Fixture Corp. and a dealer in Monitor appliances. It also handles several other commercial and domestic lines.

When Brown first put the trailer on the road last summer, its aluminum exterior bore no markings at all. However, he soon found that he was spending too much time telling people who he was and what he had in the trailer.

So he emblazoned the sides with big letters giving the firm's name and listing the appliances it sells.

Brown makes no regular runs with the trailer. When store duties permit, he selects a route at random. He stops at every farm house he comes to and seeks to interest the housewife in his wares—particularly the home freezers.

"Getting the busy woman to come out and even look at the freezer is half the battle," Brown declared. "She will protest that she is too busy to go out to the trailer, but she will gladly talk from her doorway."

When he can persuade her to enter the trailer, he emphasizes the freezers. But if the woman shows interest in another appliance, he switches his attention to that item.

Often, he related, when the freezer door is opened and the housewife sees the small appliances, she finds something she has long wanted but never gotten around to buying.

Many times, he added, the woman will see nothing that interests her. But in telling her husband about the trailer's visit, she will mention something that he wants. Then he drops into our store later and buys.

Although there are areas around Jackson that the trailer has not yet visited, it has become a familiar sight to residents of many districts. Even the children recognize it and have taken to running along side as it passes. They carry the news of its coming to their parents.

Then, while the trailer is parked in one farmer's yard, neighbors will walk over to take a look.

"Make no mistake," he warned, "taking the trailer out is hard work. The operator must be thoroughly familiar with every piece of merchandise in it and be able to demonstrate each one."

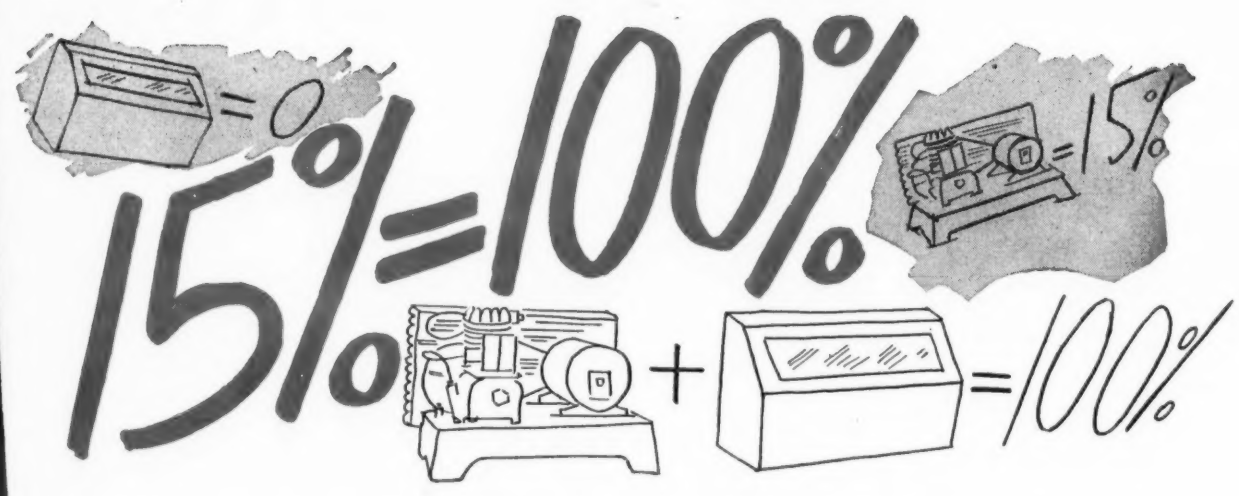
The Trailer and Its Cargo of Appliances

(Above) Exterior view of Brown & McGee's trailer that helps boost appliance sales among rural customers. (Below) Interior shot taken from doorway showing some of the appliances carried. In addition to the washer, 6-cu. ft. freezer, electric water pump, and water heater shown, the trailer usually carries an apartment sized range, a 12-cu. ft. freezer filled with small appliances, an ironer, and a vacuum cleaner. All appliances can be operated right from the trailer.

THE MASTER SERVICE MANUALS — — —
— — — and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast.
BUSINESS NEWS PUBLISHING CO., DETROIT

BRUNNER SINCE 1906 REFRIGERATION helps you serve better

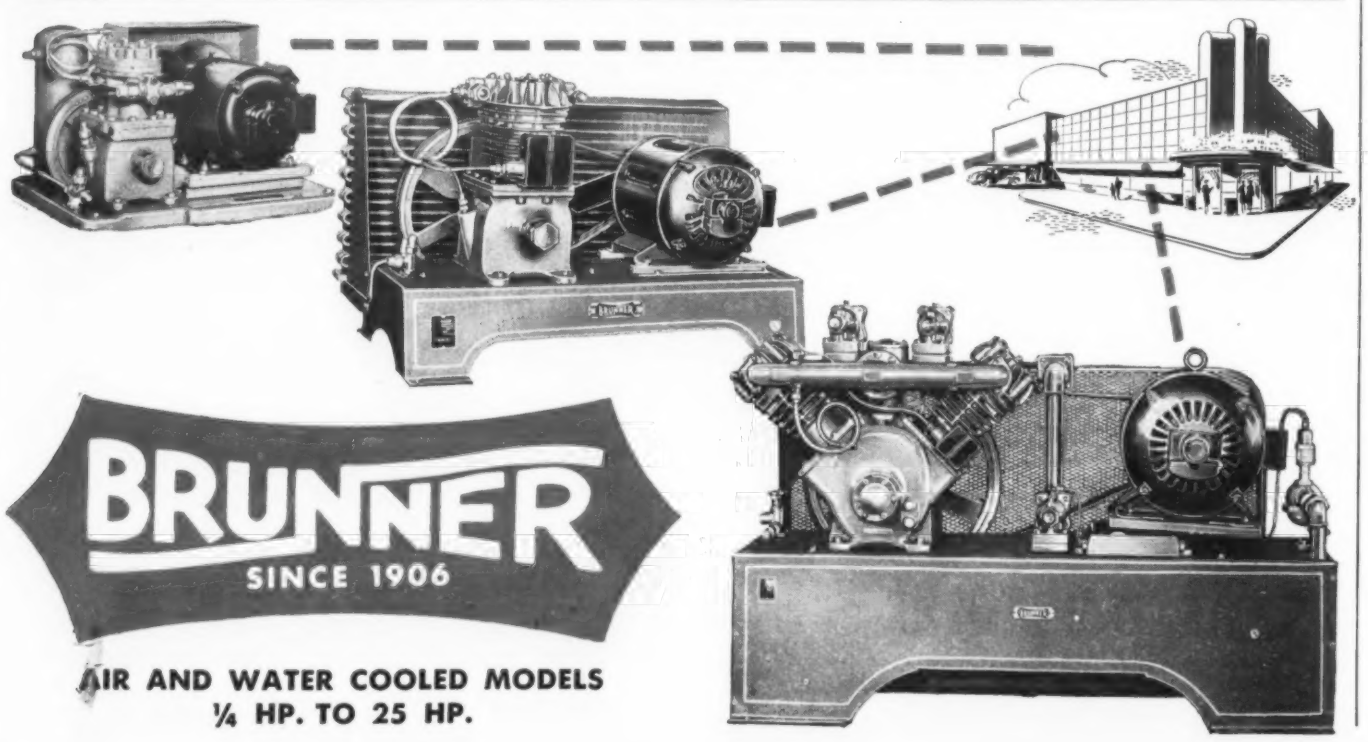
Memo to Refrigerated Equipment Manufacturers



'Tain't so you say, but consider this: often less than 15% of the selling price of your equipment is represented by the refrigeration unit you install. Yet the satisfaction of your customer is fully dependent upon the uninterrupted operation of that refrigeration unit.

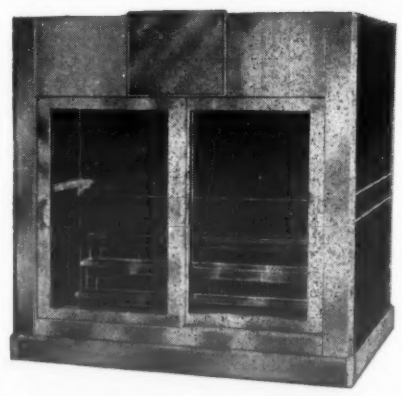
It's a great sales advantage when you can say "we are using Brunner units." Your customers know of Brunner's reputation for quiet running, low maintenance, dependable long life...and they are being kept posted through the pages of trade journals they read for guidance. The best part is this: it costs you no more to equip with recognized and preferred Brunner refrigeration units.

BRUNNER MANUFACTURING CO.
UTICA 1, NEW YORK, U. S. A.



BRUNNER SINCE 1906
AIR AND WATER COOLED MODELS
¼ HP. TO 25 HP.

IT'S "Character" FOR SALES



"Character"
FLORAL AIR CONDITIONED REFRIGERATORS
GIVES YOU THE BIG THREE
1—QUALITY MERCHANDISE
2—CUSTOMER SATISFACTION
3—QUICK SALES

NO. 630 "CHARACTER" JUNIOR
SIZE 6' x 3' x 7'

Our dealers agree unanimously that "CHARACTER" Floral Air Conditioned Refrigerators are outstanding in Design, Materials, Workmanship, and Construction.

Customers are impressed with its sleek beauty—its tremendous display area and its efficient, economical operation.

"CHARACTER" is the only Florist Refrigerator with the unmistakable touch of quality in every detail.

Write or call for our latest literature and prices on the "CHARACTER" line—America's most outstanding Florist Refrigerator.

NO. 840 "CHARACTER" SENIOR
SIZE 8' x 4' x 9'

"Character"
Refrigerators Corp.
FORMERLY A. & S. REFRIGERATOR CO.
645 BROADWAY, NEW YORK 12, N.Y.
TEL.: GRAMERCY 7-3590

Year-Round Conditioning Included In New Nebraska Motor Sales Bldg.

Three Airtemp Units Provide Summer Cooling For Offices, Showroom, Shop, and Kitchen

LINCOLN, Neb. — Year-round air conditioning is a feature of the ultra-modern Fred S. Sidles Motors, Inc., building which has just been opened for business here. Three Chrysler Airtemp units with a total cooling capacity of 40 tons are located in the second-floor conditioning room of the two-story and basement building, and the refrigerating coils connected with these units are located in the same blower chamber that distributes the heat during the cold months.

Filtered air from outdoors flows constantly through this distribution system. The air is cooled to the desired temperature with automatic thermostatic control as it passes through the refrigerating coils during the warm months of the year, while during the cold months the conditioned air mixes with the heat supply air.

To complete the air conditioning system, heat is supplied by a massive gas furnace, while a standby oil unit has been installed for use in emergencies. These units are located in the basement. The heat generated there rises through pipes to the second-floor conditioning room, where a large blower unit distributes it to the various offices in the building, with the same ducts being used for cool air in summer.

The service area itself is heated by individually placed gas space heaters. The shower room and the other departments in the service area whose doors shut them off from the area heat supply, are heated by radiant heat, under the concrete floor. Beneath these floor spaces are a series of hot water pipes in coil arrangement, and through them hot water is distributed as needed by a thermostatically controlled water pump which is part of the main furnace unit. An ample supply of hot water is maintained by a gas heater with a storage tank capacity of 600 gallons.

A commercial refrigerator also is part of the completely equipped, compact kitchen, 230 sq. ft. in size, on the second floor. The north wall is dominated by a large gas range with two ovens, a broiler and grill. Next is a special mechanism for deep frying, called the Frialator. These two appliances are set in an aluminum device which protects the walls and adds to the sanitation of the kitchen. A suction fan takes the kitchen odors and fumes from the room and out of the building.

White-enameled cupboards line the walls on the east side of the kitchen, along with the latest-type steam tables. The large refrigerator, an automatic potato peeler, and a Colt Auto-San dishwashing machine stand to the south of the room.

A full-time cook and a cook's helper will be employed to prepare the meals and do all kitchen work. Every employe of the company will have the privilege of eating his noon meal at cost through this arrangement.

Off the kitchen is an air conditioned dining room with a seating capacity of 100. It looks like a men's club dining room rather than a cafeteria. The room is 975 sq. ft. in area, has floor covering of linoleum rust blocks with black design, while the walls are attractively done in tan linowall to about 5 ft. from the floor, and above that is the wallpaper mural.

Still another air conditioned room on second floor is the recreation room. It has been equipped with pool, snooker, ping-pong, and card tables, and is decorated in much the same manner as the dining room.

The new Sidles building covers 30,000 sq. ft. on the main floor. The kitchen, dining room, and recreation room on second floor, and the offices and glass-front auto show room on first floor, really form "a building within a building" as these rooms all are air conditioned and separated very definitely from the service sections.

REPOSSESSED MERCHANDISE - - PRICED TO SELL

1 new G25 Frozen Food Display Case without Compressor	$165.00 each
1 new Carrier Cold Diffuser Model 15M5	75.00 each
1 used Carrier Cold Diffuser Model 15M5	50.00 each
6 new Carrier Cold Diffusers Model 15M4	75.00 each
8 new Carrier Cold Diffusers Model 15M6	95.00 each
1 new Carrier Cold Diffuser Model 15M7	126.50 each
5 new Bev Food Coolers	195.00 each
1 new A-8 Chill-Aire Buxton Stainless Steel Coolers without Compressors	245.00 each
2 new Blue Flash Brunswick Bev Coolers	195.00 each
2 new Beall Walk-in Freezers complete with Compressors	1125.00 each
1 new Paley 8' Frozen Food Case without Compressor	395.00 each
1 new Carrier Room Air Conditioner Model 51D2	353.00 each
2 new Carrier Conditioning Units with 3 H.P. Compressors	297.50 each
1 new Carrier Room Air Conditioner Model 51B2	240.00 each

All prices are F.O.B. Stockton, California.

THE STOCKTON MORRIS PLAN COMPANY
10 No. California Street,
Stockton, California

'Inventory Interchange'

Heating Wholesalers Adopt Plan To Ease Supply Situation By Exchanging Shortages and Overages Among Members

CLEVELAND—The National Heating Wholesalers' Association has announced that "Inventory Interchange," a system whereby member heating wholesalers can fill their inventory shortages with overages held by another member and can in turn dispose of their inventory overages to other members short in those items, has now been put into operation by the association.

Richard M. Colegrove, executive secretary of the association said,

"We have started 'Inventory Interchange' into operation this month because we feel that the time is ideal for the start of this project. Most of us have just finished taking inventory, and each knows what items he holds in excess and on what items he is short. Then, too, we are, to a considerable extent, still in a shortage era, and the securing of inventory items is of primary importance in completely servicing our market.

"Added to this is the recent imposition of local rules and regulations by municipalities and fuel supplying agencies which have caused violent changes in demand for certain types of equipment in various sections of the country. All this adds up to make the maintenance of proper inventory quite a task for the heating wholesaler and the time opportune to utilize 'Inventory Interchange' to help solve the problem.

"We feel that this system will be welcomed not only by wholesalers, but by manufacturers, dealers, and by the public in general.

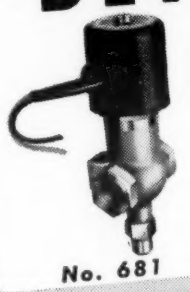
"To the manufacturer it offers the definite advantage that his product will not become poor merchandise in one area because it is top heavy excess inventory there and unsold merchandise in another area because it cannot be obtained there. Supply and demand will be automatically equalized throughout his sales area and his product will receive goodwill and active distribution everywhere.

"To the dealer, it means that he can now obtain from his wholesale supply house many desired items heretofore unobtainable in his area because of short supply in that area.

"To the ultimate consumer, it means that any heating installation distributed through wholesale channels is now backed up by the resources and inventories of heating wholesalers throughout the country."

Lets Analyze Quality

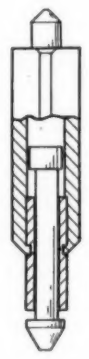
"DETROIT" SOLENOID VALVES



No. 681

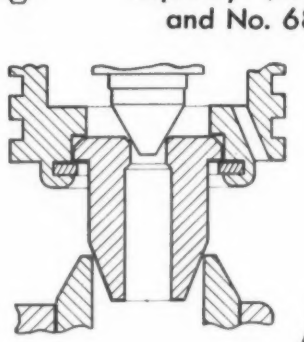
Freon-12 Capacities with 2 Lbs Pressure Drop Through Valve—No. 683-3 . . . 3 Tons—681 . . . 7.5 Tons —686, 11 and 17 Tons. Nos. 681 and 686 have Pilot Operated Needles. (No. 681 Illustrated.)

These ADD UP TO PERFECT REFRIGERANT CONTROL



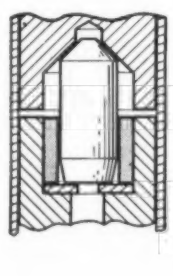
1 Impact plunger for greater lift.

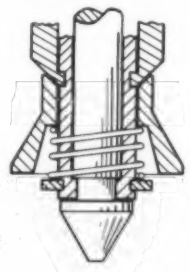
2 Pilot operated main needle for large capacity. (No. 681 and No. 686.)

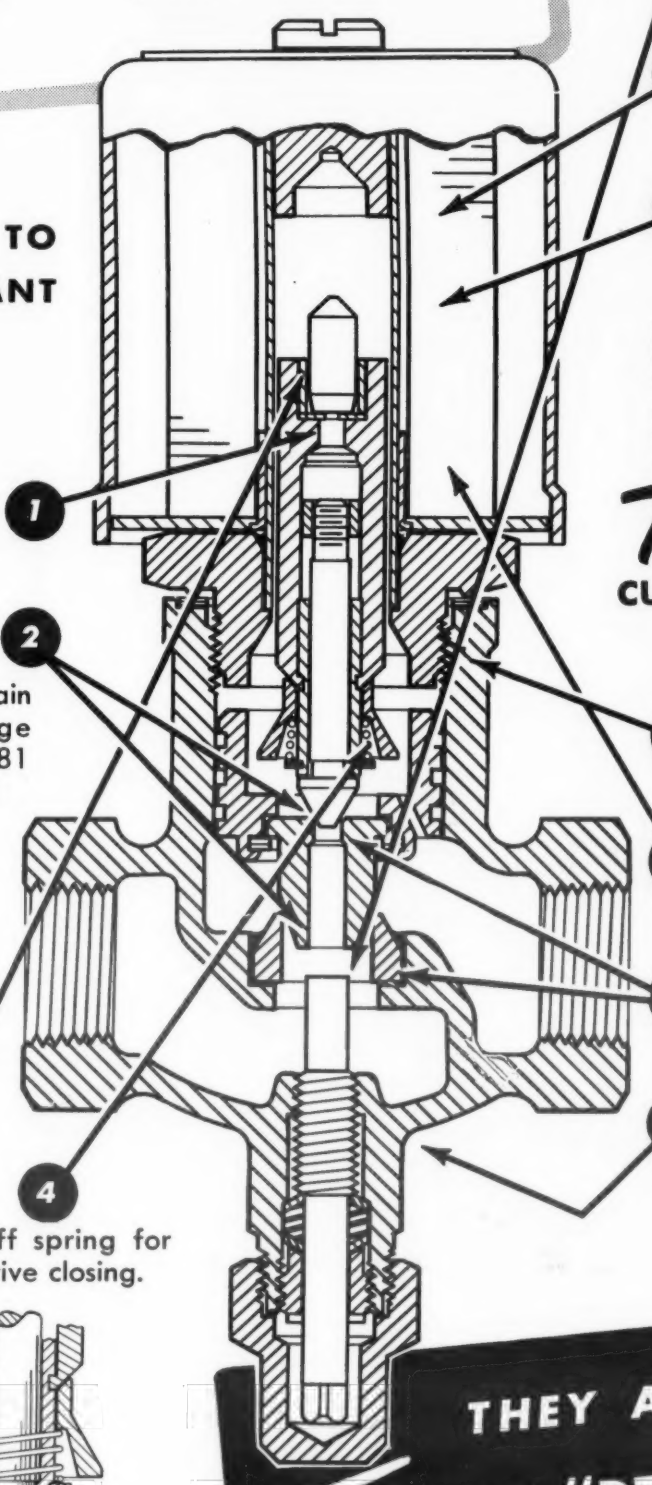


3 Shading coil for quietness.

4 Kick-off spring for positive closing.







These ADD UP TO FLEXIBILITY OF INSTALLATION

5 Capacities from 1.3 to 17 tons Freon-12 in 3 valves —at 2 pounds pressure drop through the valve.

6 Coils available for all standard A.C. and D.C. voltages.

7 Dual voltage coil available for use on 115 or 230 volt, 60 cycle A.C.

These ADD UP TO CUSTOMER PROTECTION

8 Can be disassembled for cleaning without removing valve body from line.

9 Plasti-seal coils for protection against moisture seepage and consequent burnouts.

10 Stainless steel needle and seat.

11 Nos. 681 and 686 have manual lift for testing and protection against power failures.

THEY ALL ADD UP TO *Famous* "DETROIT" *Quality*

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Canadian Representatives — RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

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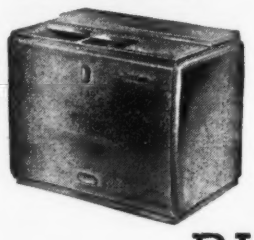
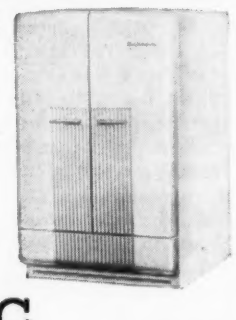
**—FOR BUXTON'S THREE GREAT NEW REFRIGERATORS *
NEW STREAMLINING * NEW ENGINEERING FEATURES**

SO COMPACTLY DESIGNED THAT THE SPACE REQUIRED IS ABOUT THAT OF THE AVERAGE 12 Cubic Foot Refrigerator, but you actually get a Refrigerator with 22 Cu. Ft. normal temperature . . . the Combination Refrigerator is 19 Cu. Ft., half Zero—and half normal and the all Zero refrigerator is 18 Cu. ft.
—And the *BUXTONAIRE* DRY Cooler for bottled beverages and food products.



All Inquiries will be personally contacted within a few days.



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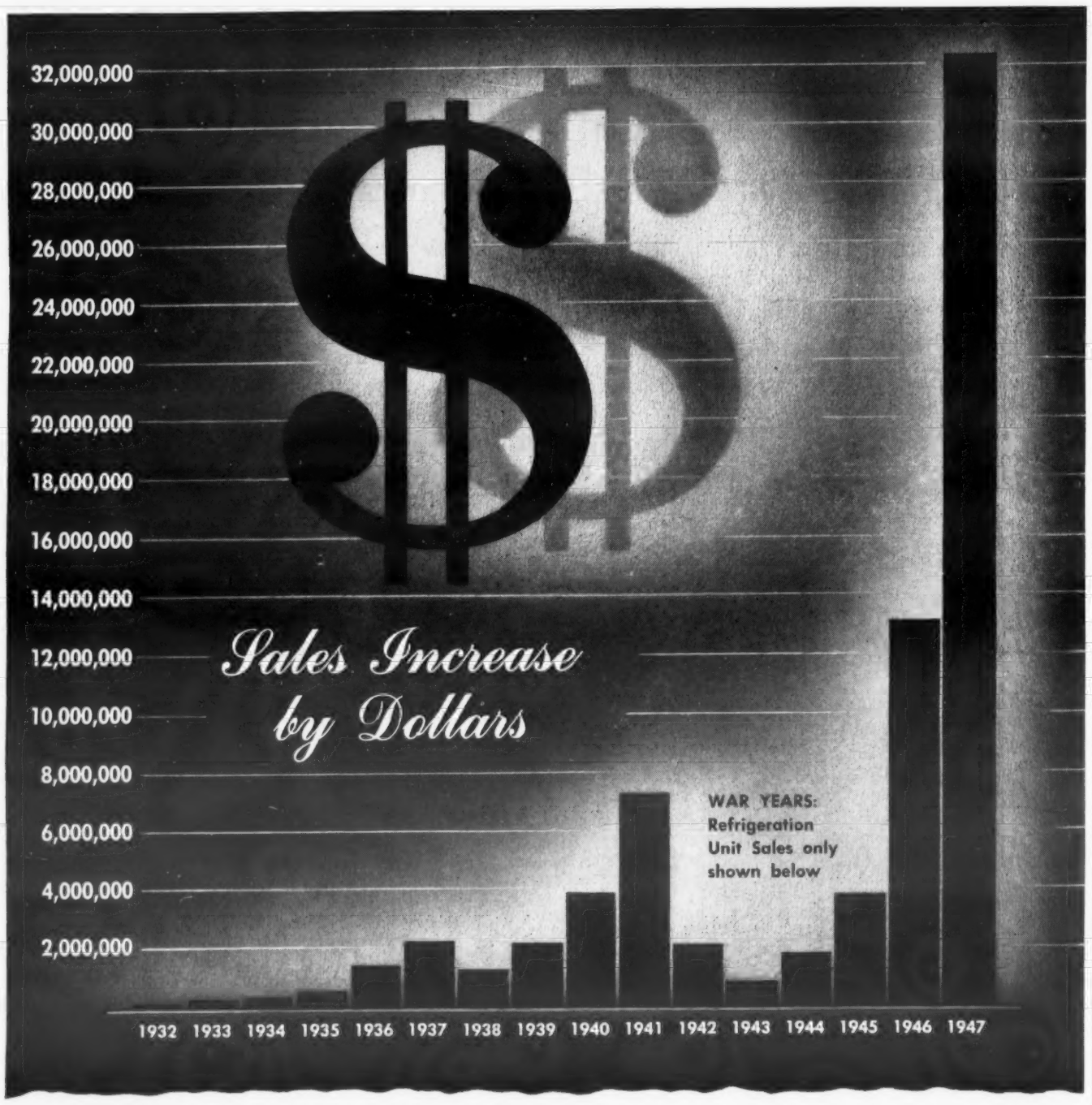

Under a free competitive system of business, goods are produced for sale at a profit . . . and sales are made on the basis of merit. How good is the product? How well does it work? How long will it last? How much does it cost? In its free and unrestricted efforts to find the best answers to these basic buyer questions, private industry in the United States has succeeded in developing, producing and selling more things, better things at lower cost than the industry of any other country.

With the exception of recent war years, Tecumseh Products Company has steadily increased its sales of compressors and condensing units to manufacturers of complete refrigeration equipment. Total dollar volume of sales has jumped from $170,582.00 in 1932 to over $32,000,000.00 in 1947.

TECUMSEH PRODUCTS COMPANY
Tecumseh, Michigan

Contractors, Wholesalers Tell Each Other Where They Stand

During their recent annual meetings in Cleveland, George Roche, retiring president of the Refrigeration Equipment Wholesalers Association, addressed the National Association of Refrigeration Contractors, and Warren Farr, retiring president of the contractors, spoke before Rewa.

Both men expressed the hope and outlined methods by which the two groups could work more closely, but each was frank in discussing some of the problems and business relationships that have resulted in feelings of mistrust between the two.

The excerpts printed on this page represent the more important statements made in the two talks.

Farr Before R.E.W.A.

"The contractor has organized himself, first, in self-defense; secondly, to improve present conditions; and third, to advance constructive planning for the future.

"We believe that, if the refrigeration industry is to continue its present rate of growth, all segments of the industry must maintain the best of relations. Members of the Contractors Association recognize the Wholesalers place in this industry and, unlike many contractors organizations in other fields, have not organized themselves with any thought in mind of eliminating the wholesaler. Our constitution and our objectives do not provide for cooperative purchasing or entering into the field of supply in any manner.

"The Contractors Association membership numbers approximately 1,000 at the present time, and by this membership approximately 6,000 mechanics are employed. This is an unusual fact in that the average number of employes per contractor is six. This will indicate to you that most of our members come from among the group of larger contractors and distributors. This group have an annual purchasing power of $160,000,000 dollars.

"I am happy to report that our National Association have received comparatively few complaints against wholesalers' operations this past year. I think that the complaints received can be classified in three groups, as follows:

"First, objections to type of sales made by the wholesaler; second, equitable distribution of the wholesalers' materials between contractors in an area; and third, direct wholesaler competition.

"The first of these complaints is rather an old one, and one that is disappearing quite rapidly; it is one which the contractor has not done his best to discourage, and that is the practice of selling direct to the consumer at either wholesale or retail. Many wholesalers have overcome this objection by presenting a policy to their local contractors association which does not provide for this type of sale.

"The second complaint dealing with distribution of wholesalers' stocks on an equitable basis to contractors is one which will eliminate itself when materials are readily available. Probably the foremost in this category in the past year has been the 'Freon' situation, and when I think of a wholesaler's obligation to his customers of distributing his 'Freon,' I am certainly glad that I am a contractor.

"In many cases the contractor has complained that he is unable to get adequate 'Freon' when the man across the street, who entered this business within the last few months, is getting 'Freon.' He feels that his 'Freon' is being divided among newcomers in the industry. It is hard to justify this contractor's feeling, as most contractors in this country have had their gross sales curtailed and the efficiency of their departments affected through the 'Freon' shortage.

"The third complaint dealing with direct wholesaler competition comes primarily from our distributor type of member who feels that the wholesaler is his competition when he engages in the sale of completed fixtures, such as display cases, reach-in coolers, walk-in coolers, air conditioners, also the type of wholesaler who offers to all comers engineering service along with the purchase of this equipment.

"Again, it is not hard to understand why a contractor in the distributing business might feel this way. As an association we are unable to do very much about this situation except pass it along to members of REWA as the thinking of a percentage of our membership. Again we point out that refrigeration items should be sold by a contractor with sufficient responsibility so that the buying public will be assured of good engineering, sound installation, and a financially sound contractor who will fulfill the obligations due the customer, and that these products should not be sold at an inadequate profit by someone who is not responsible to the consumer.

"Each year as we progress I believe that our thinking is closer together than it was the previous year. I believe that these problems can be worked out. I want to take this opportunity to tell you that our National office has had the finest of cooperation with your office, and I believe that in the years to come there are many things that REWA and NARC might undertake as a joint enterprise.

"One of these items would be industry statistics. The contractor is the last link in the chain of distribution. The wholesaler has a broad view of what volume is transacted by both the large and small contractor. Jointly, we might offer the refrigeration industry some very valuable statistics.

"In the not too distant future we might consider some joint merchandising plans whereby we would present to the public good material and good workmanship. The pattern for such a merchandising program might be set by our National Associations."

Roche Before N.A.R.C.

"Our Wholesalers Association is composed of a large number of individuals who operate their own business, by their own conception of what they believe to be good business methods which they believe are sound and economic.

"It is impossible for us, as an association, to issue a statement of business policy which goes into minute details since conditions vary in various sections of the country. There are, however, many broad points of business policy on which we can agree and these you will find summed up in our Association statement of business policy.

"Our Association is a democratic organization, without any question. We cannot dictate to our members. However, we have and will continue to exert whatever moral control over our members it is possible for an association to exert.

"It is a part of our associational thinking that we cannot prosper at the expense of our customers; but that we must continue to success and profit WITH them. This is also true of our relations with the manufacturer. Unless we, who represent the manufacturers, profit, then we cease to exist. We can carry this thought on to the contractors group or any other trade factor which you may choose.

"For several years now we have had a Manufacturers Relations Committee through which we deal, as an association, with the various Product groups as set up by Rema. We have found this method of approach most satisfactory. Wherever there is a problem which confronts all of our members or affects a large majority of them then we can take this up as an associational activity, present it to the manufacturers through our committee and theirs, and over a period of years we have found that this method gives very satisfactory results.

"It is my sincere belief that there is no place in our business or in yours for dual operation which embodies the functions of the contractor and the functions of the wholesaler. It is our sincere desire not to compete with our customers. That is one of the basic policies that has been in our organizational thinking since 1935.

"However, there will be an occasional border line case which may be disputed. These are mostly individual cases and in many cases a matter of variance of personal opinion.

"The average Refrigeration Equipment Wholesaler does not have the organization or setup to handle consumer business. In my own business we definitely turn it away. However, other wholesalers have a slightly different viewpoint on this and there again the matter of personal opinion enters in. They are entitled to their thinking the same as I am entitled to mine. I cannot control them any more than they can dictate to me.

"We will hear occasional rumors of wholesalers who are doing contracting business. Several of these have been run down and found to be without fact. In other cases it has been indicated very definitely that a wholesaler has stepped across the border line and gone into a field in which he does not belong.

"On the other hand we have rumors of contractors making an effort here and there to set up wholesaling activities while continuing as contractors so as to accrue a double profit. Neither one of these activities is sound or economic.

"We would like to see a program worked out with the National Association of Refrigeration Contractors, in which you would develop a Wholesaler Relations Committee with whom our Trade Relations Committee can work on matters that affect both of our memberships.

"We do not wish to compete with you. We wish to help you. We will welcome information from you at any time which may help to eliminate activities among our membership that are not conducive to good business relations with our customers.

"However, we must remember at all times that there are certain activities into which, as an association, we dare not enter because of Federal or State laws and regulations which control commerce. We must be ever mindful of these laws which govern business relationships. Whether we approve of them or not they are still the laws which we must adhere to."

Modern Refrigeration Is Grocer's Best Friend, Says Assn. Head, Who Owns 3 Supermarkets

LINCOLN, Neb. — With the "high cost of living" bearing down on the food retailers as well as consumers and compelling the retailers to lower markups in order to keep business volume up, not to mention increased competition, the grocer's best friend is modern mechanical refrigeration, says Karl P. Meyer, president of the Lincoln Food Retailers Association and proprietor of three supermarkets in Lincoln.

Meyer declared that he speaks from first-hand knowledge, since new refrigerated display cases have cut waste in his produce departments by fully 50%.

Buying for the supermarket is highly important, of course, Meyer pointed out, but proper handling of foodstuffs after they are purchased is equally important. The Freadrich Brothers stores, of which he is owner and manager, hold monthly training sessions for buyers, department heads, and clerks, with special instruction, demonstrations, and discussion on proper handling and refrigeration of perishable and semi-perishable items.

Modern refrigeration is the cheapest thing the supermarket buys, the Lincoln executive declared, because it more than pays for itself. One of the best friends the grocer and meat dealer has is the refrigeration dealer, he added. The refrigeration man can give the retailer the detailed information he needs on proper refrigeration of all kinds of food items, and advise him concerning the exact installations he needs in the light of the size and type of store he operates.

Meyer stated that not only has he cut waste in his vegetable departments by 50%, but the installation of special, self-service display cases for produce has enabled his store to give the patron crisper, better produce, thereby increasing sales volume.

Among the result problems that refrigeration has enabled Meyer to solve is that of the avocado. There used to be a very heavy wastage of this fruit, he said, but installation of a special display compartment which keeps the temperature at 45 to 48° F. has practically eliminated waste.

Other vegetables such as green beans and lettuce cease to present a wastage problem when they are displayed at a temperature which is neither too cold nor too hot, he said.

Meyer also pointed out that waste results from trying to get along with too few refrigerated display cases and storage compartments. Putting vegetables with dairy products or meat may result in a heavy loss of meat or dairy products through tainting of flavor, he asserted. He uses separate cases for meats, dairy products, fish, frozen foods, ice cream, and produce. He finds, however, that packaged fish, especially the dried varieties, may be displayed in a section of a meat case.

Proper insulation of the store is also very important, he said, and constant control of heat is essential. If the store is too hot, not only will the fruit and other items deteriorate more rapidly, but customers will go elsewhere.

The ideal solution to the problem, Meyer believes, is the installation of year-round air conditioning.

Western Commercial Dealer Takes to the Air

Flies 180 Miles To Show Prospect an Installation

LOGAN, Utah—Commercial refrigeration is literally "up in the air" in this locality these days.

When customers need new equipment, parts, or service, they telephone Homer S. Lloyd, a progressive young Frigidaire dealer here, then step outside and watch the skies. The vigil is usually short-lived, whether they are located nine or ninety miles from Logan for Lloyd actually "drops in" on them—by plane.

Lloyd, a licensed pilot uses his own private single-engine aircraft regularly in his business, rendering service throughout his extensive territory—especially emergency service in comparatively isolated installations. He also employs his "rapid transit" system to close the sales.

Recently he transported a prospect from Logan to Salt Lake City, 90 miles away, to view an all-Frigidaire equipped market. He travelled the entire distance, to and from Salt Lake City, closed the sale with his prospect for a new Frigidaire meat case, and was back in his establishment in little more than two and one-half hours.

Homer S. Lloyd, owner of Logan Refrigeration Co., stands beside his single-engine plane, which he uses to operate his Frigidaire commercial dealership. Lloyd uses his plane for service calls and to promote sales.

sell the cabinet that's designed to sell MORE FROZEN FOODS

The GOODSELL MODEL SS8 FROZEN FOOD DISPLAYER is designed to meet the needs of the independent food merchant.

HERE'S PROOF:

1. REFRIGERATED DISPLAY WINDOW for display of opened up packages. Attracts attention. Stimulates impulse buying.
2. SELF CONTAINED 1/2 H.P. CONDENSING UNIT mounted beside display window, does not take up floor space.
3. SLIDING GLASS LIDS, which may be removed during busy hours. Greater accessibility to food.
4. Goodsell OVERHEAD COILING avoids rapid softening of the top layer of food.
5. LOW OPERATING and MAINTENANCE COST.
6. 21 CU. FT. CAPACITY—holds 700 average packages of food.
7. CABINET ONLY 68" LONG — requires very small floor area.

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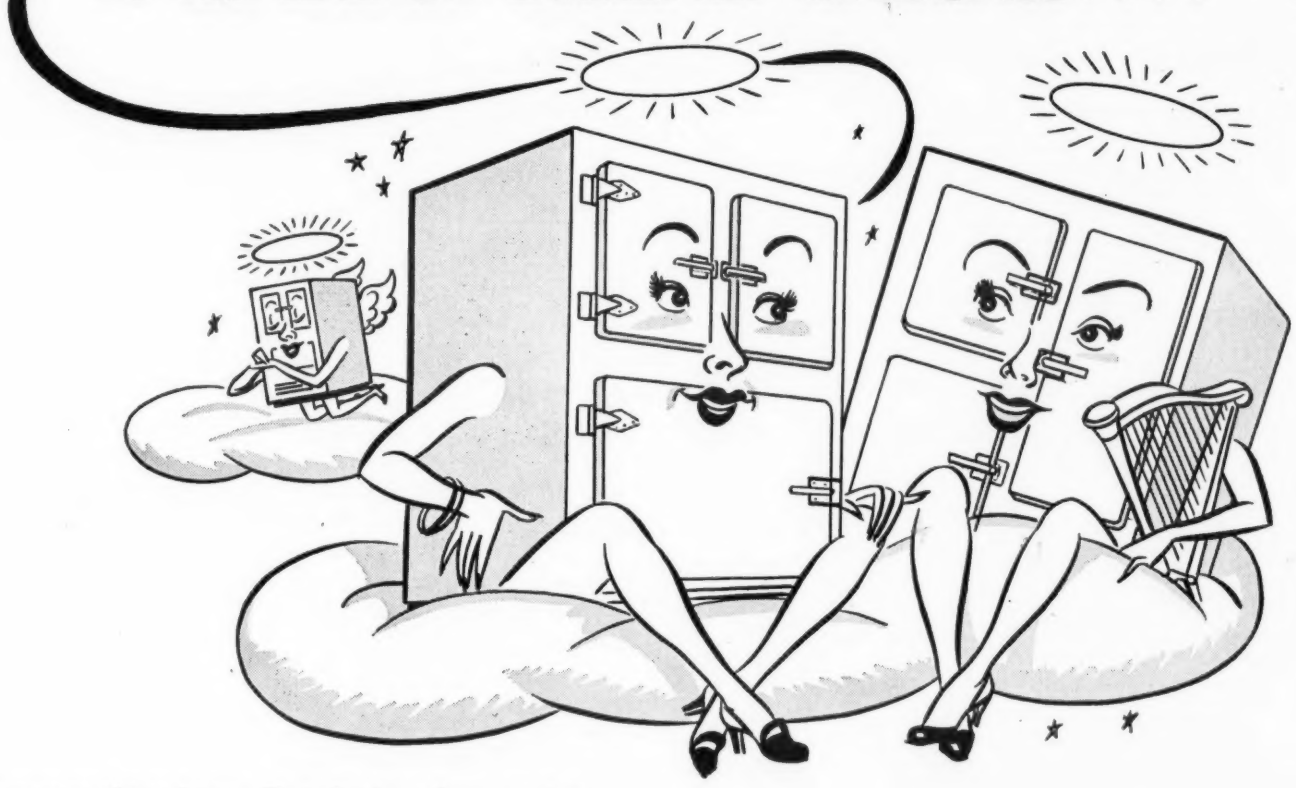
GOODSELL CORPORATION
1820 FLUSHING AVE., BROOKLYN 6, N.Y.
Evergreen 7-4064

Insist on genuine Marlo Products

MARLO = HEAT TRANSFER
Since 1925

"Lizzie says the New KOCH Refrigerator is the BEST reach-in on Earth...."



"Lizzie sure ought to know. She's fresh up from earth."

"Right, sister! Liz is one of those old pre-war boxes. They're streaming up here faster than ever, since KOCH brought out those new stainless steel refrigerators. We're up against a housing shortage . . . right here on our own cloud."

"Things haven't changed a bit. You could always count on KOCH to pioneer improvements in the refrigerator industry. What's the story?"

"It's terrific! KOCH has a 25-cu. ft. stainless steel refrigerator that is all welded together into one unit. There's no wood in it."

"Say! That means the insulation must be continuous."

"Even the flanges of the doors are insulated. The cold can't leak out."

"Brrr! I suppose a new KOCH costs less to operate than ever."

"That's what Lizzie said. She said she just couldn't compete."

"I'd like to see one of those new KOCH Refrigerators."

"Sister, you have a long wait coming. They won't ever get up here. They can't rust out. They were developed during the war, to meet battle conditions aboard ships of the U. S. Navy. They are just starting to penetrate the civilian market."

"That's quite a recommendation. So long, now. I'm going to drift down to the lower clouds. Want to find out some more about that new KOCH Refrigerator."

"You'll find out that users who want more storage space at the lowest cost are positively insisting on KOCH Refrigerators. Don't say I didn't tell you."

Here are the facts: The new KOCH Stainless Steel Refrigerators have 25-cu. ft. of 100% effective space. You can store more food at lower cost, because the continuous insulation holds in all the cold. Just take a look at this beautiful new refrigerator TODAY, or write KOCH for literature and details.

The Koch 25-Cu. Ft. Reach-In Refrigerator is now available with or without an ice-maker. You can freeze a full load of 216 cubes (21 pounds of ice) in remarkably short time...it's convenient!

"KOCH IS TOP NOTCH"

KOCH Refrigerators SINCE 1883

NORTH KANSAS CITY 16, MISSOURI

They'll Do It Every Time . . . . By Jimmy Hatlo

A WIRE TO CORNELIUS DIMBULB, PICCOLO PARK, NEW MEX. QUOTE: REFERENCE MY RECENT LETTER, WIRE COLLECT YES OR NO. SIGNED, BIGDOME.
J.B BIGDOME
SO BY RETURN WIRE, COLLECT, IT ONLY TOOK DIMBULB 79 WORDS TO SAY "NO"
THE GUY MUST'VE THOUGHT HE WAS WRITING A BOOK! HAVE YOU GOT $10.58 FOR THE MESSENGER?
IF ..AND BUT- HOWEVER ETC. ETC.
TELEGRAM
TELEGRAM
JIMMY HATLO
THANX! AND OFF IS THE HATLO HAT TO GLENN R. WINTERS, HUTCHINS HALL. ANN ARBOR, MICH.
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Do You Have 'One Foot In the Door'?

We do this in self-defense

...but see how it works to your advantage

For many years we've manufactured small diameter tubes of the highest accuracy commercially obtainable.

One of the reasons for this is the consistent use of the bore telescope on our redraw tube stock . . . for a *small* defect in a large tube would mean a *large* defect in a small tube.

Since a tube with an imperfect bore could not escape our final tests and inspection, it would be rejected and scrapped . . . hence, we have a mighty good reason for ferreting out any possible imperfection right at the start. It saves *both* of us time and money—and assures a superior product.

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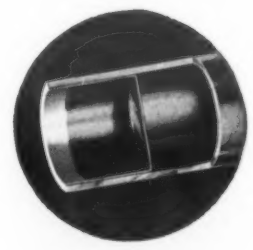

Precision-made tubes in Copper, Brass, Bronze, Aluminum and Copper-Nickel Alloys; in sizes from .015" O.D. to 1" O.D. with walls down to .004"; round, square, or irregularly shaped; in coils, straight lengths or special forms. Bourdon tubes, thermal expansion bulbs. And, of course, Anaconda Dehydrated Copper Refrigeration Tubes with the famous Cup Seal*.
*Patent Applied For

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Anaconda Precision-Made Tubes

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Chain Stores vs. Chain Sales

JUDGING from recent announcements in the public prints, the world and its brother still wants to enter the specialty appliance business.

Following the example of Sears-Roebuck and Montgomery Ward, nation-wide chains of tire stores—Goodyear, Goodrich, General—have declared themselves "in" on the refrigeration and home appliance business.

So have auto accessory chains.

To add insult to injury, now drugstore chains are dealing themselves into the game.

Where does this movement leave the independent dealer (the man who truly *made* the major appliance merchandising business what it is today)?

Does it leave him holding the sack?

Is he to be outnumbered and outgeneraled by mighty purchasing-power groups, and by slash-margin selling outfits?

No! A thousand times NO!!!

Advent of the chain-stores in his competitive field presents him with a Heaven-blessed opportunity for demonstrating his true worth as a specialty merchandiser.

Chain stores are managed by hired men. The latter work from 9-to-5. Some of them don't do a darned thing "for the bosses" that they don't have to do.

Customers, to not a few of them, are headaches.

(That is, to *most* of those we've seen recently. There are a few outstanding exceptions.)

Contrast this negative "hired man" attitude with that of an alert independent specialty appliance dealer who is in business for himself.

He *knows* he must win friends and curry favors if he is to stay in business.

Overtime work he takes for granted. Turning "the other cheek" to customer "sass" is part of his job.

He takes on all comers—no matter how mean or nasty—and tries to convert them into buyers.

Can he compete with the hired-man chain-store managers?

You bet your life he can!

To the families who buy one appliance from this honest adviser, he becomes a trusted friend and counsellor.

Then, when these families can afford to buy the next appliance on their want-list, he's the chap who gets their business.

Chain sales, that's the cue—one leads to another, when the seller is well-liked and completely-trusted.

And *personal service*—that willingness to work nights, Saturdays, and Sundays, above and beyond the Call of Duty, to get the job done—will pay off in terms of *repeat sales* in the long run.

The conscientious specialty dealer will have little to fear from the competition of chain stores if he'll get off his fat can and *work* for chain sales.

That last sentence should be re-read.

When specialty dealers in major appliances simply wait for the telephone to ring, or for cash-happy buyers to walk into their shops, their no better than the salaried managers of chain outlets.

To maintain their important position in the competitive selling era which will soon burst upon them, they'll have to *work*—harder and longer than the chain store men.

They'll have to ring doorbells, advertise, promote, think up stunts, demonstrate, and stay open nights and Saturdays.

And we have full confidence that most of them will, when put to the test.

New modern home of UNITED COMMERCIAL SALES CO., Los Angeles. Note the spacious loading platform and convenient paved parking space, with store entrance handy to the parking lot.

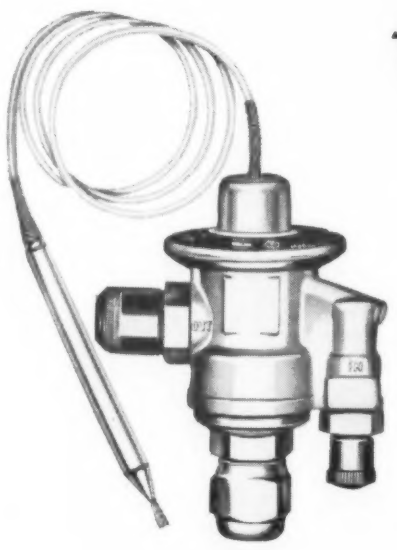
Your Refrigeration Equipment Wholesaler

Indirect lighting, modern interior styling, effective new display counters and racks and a long sales counter handy to well-filled stock shelves make this new store of the United Commercial Sales Co. inviting and efficient.

. . . Provides an "INSIDE TRACK" to Your Supply Sources

Your Refrigeration Wholesaler holds a unique position in your progressive industry. Practically, he is the conscientious local representative of hundreds of manufacturers. Yet he enjoys the unusual privilege of being able to choose his products solely on the basis of their merit — their value to you, his customer. And he really exercises that privilege critically, to display and stock only performance-proven equipment, parts, supplies and tools — the kind you can depend upon to simplify your service problems and to protect and improve your reputation for quality workmanship among your own customers. His well-planned, well-staffed modern store offers a wide selection of the items you need, and if he can't show you the product you want he knows where to get it quickly. He knows most Refrigeration Manufacturers intimately, contacts them daily, enjoys their confidence, and merits prompt and careful service from all of them — to your benefit.

Add New Refrigerant-Control DEPENDABILITY to Refrigeration Systems . . .



MODEL 207
Thermostatic Expansion Valve
Capacity to ½ ton Freon

One of today's most popular small-system Expansion Valves, Model 207 is designed for all applications involving low, medium or high suction temperatures. You'll want it for display cases, small walk-in and reach-in boxes, ice cream cabinets, freezers, air conditioning and similar units.

YOUR WHOLESALER STOCKS THESE VALVES, OR WRITE FOR BULLETINS E131 AND E156.

MODEL 212
with New
Pressure Limiting Feature

Designed to protect your systems against motor overload, Model 212 may be used in place of any expansion valve of similar capacity — ½ and 1 ton Freon or Methyl. Types available to limit pressures to 15, 40, and 55 lbs. Freon 12; 10 and 30 lbs. Methyl.

AUTOMATIC PRODUCTS COMPANY
2450 North Thirty-Second Street, Milwaukee 10, Wisconsin
Export Dept., 13 East 40th Street, New York 16, N. Y.

DEPENDABLE **REFRIGERATION VALVES**

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE
. . . RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS

the **Sanitary Quicfrez** *is Easy to Service!*

With the Condenser Unit conveniently placed for quick access, servicing of the dependable QUICFREZ—Pioneer of Farm Locker Plants—is always an easy task.

Quicfrez Sales are Speedier-

—because people appreciate performance and quality features like these:

- 4 Roomy Storage Compartments for 75% greater convenience.
- 12½ Cu. Ft. Capacity—storing up to 600 lbs. of meat.
- Welded Steel Cabinet construction, with 5 inches of Glasswool insulation.
- Moisture-proof Sealing—preserves cabinet insulation.
- Low First Cost—economical daily operation.

Ask About SELECTED **QUICFREZ** DEALER FRANCHISES STILL AVAILABLE

SANITARY Quicfrez FARM LOCKER PLANT

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN
Farm Locker Plants Since 1939, Ice Refrigerators for More Than 40 Years

N. Y. Distributor's Spot-Checking Thwarts Builder-Duplicated Refrigerator Orders

NEW YORK CITY — Know any home builders who duplicate appliance orders and then sell the surplus items? They're gunning for 'em in this city.

Several local dealers have issued complaints that multiple orders for refrigerators have been registered with different suppliers by unethical construction firms. But when each competing distributor makes delivery on the refrigerator, the home builder ends up with three for one house. Result? He sells the "extra" ones either to a consumer (directly competing with retailers) or to another dealer.

Some distributors, however, claim that this type of diversion is not occurring in top name brands. Others add that the practice of duplicate orders is confined to small builders.

Intensive policing of all orders placed by construction firms apparently is the answer. At least one large distributor in this area seems to think so. His system works something like this:

"Any builder who comes to place an order for less than five refrigerators is referred to one of our dealers," he stated. ". . . We are not interested in the builder who places six orders. We are willing to do business with a man who has 50 or 60 dwelling units and whose reputation has been carefully checked by us."

This preliminary investigation of the building firm is followed by two other spot-checks. One occurs, of course, at the time of delivery when the man driving the distributor truck makes sure that the refrigerator actually goes into the kitchen of the house in question. If he finds there's one already installed, the unit on his truck goes back to the warehouse.

The other spot-check takes place about 10 days after installation. At that time a distributor representative drops in to see that the refrigerator is still at the address to which it was delivered. If not, the distributor crosses that builder's name off his prospect list—for keeps. Thereafter no more orders are accepted from the construction firm handling the job.

In the automatic washer field, the mechanism for handling orders by builders varies. Launderall has stated all such orders are turned over to dealers and none handled direct from the factory. Bendix orders, however, are channeled through the local distributor.

Appliances Offered to Schools at Half-Price Under Hotpoint Plan

CHICAGO—Accredited schools may now procure electrical appliances for home economics department uses at approximately half their retail price with an arrangement to replace them annually at no extra cost in a new national Electric-Education program announced by Hotpoint, Inc.

A planning service is providing room layout plans by which home economics class rooms are made to simulate home working conditions.

Leonard C. Truesdell, Hotpoint vice president of marketing, stated that a majority of the nation's high schools and colleges were using equipment that is more than 10 years old and bears slight resemblance to types of equipment now being sold for homes. He said that Hotpoint's program by which appliances would be installed on prices based on their actual cost would be handled through distributors and local dealers across the country.

In a program announced to distributors, appliances for 1,000 basic school kitchens have been given priority over other deliveries with allocations made on the company's regular distributor quota basis.

Through kitchen planning service established by distributors based on a continuing Hotpoint Institute teaching course plans for efficient arrangements are made available. Local electric utility company home economics departments in many cities are cooperating as a part of their regular educational activity.

For educational uses a complete kitchen is described as units in which two or more ranges are combined with a dishwasher sink and refrigerator to permit several students to receive instruction in class work. Larger schools have as many of these basic units as their class sizes require. In each basic unit wall cabinets and base cabinets are provided.

Ft. Wayne Reports Rise In Appliance Sales

FORT WAYNE, Ind.—Sales volume of electric home appliances took a fast upward turn here in November, it was reported by John H. K. Shannahan, sales promotion supervisor for Indiana Service Corp., in a survey covering 45% of the home-furnishing and appliance dealers of the city.

Following a rather slow market in October, the November sales reflect a stepped-up buying tempo over the year end, tempered in many instances only by the ability of individual dealers to obtain supplies, the report indicated.

Broken down into sales units by appliances were as follows: electric ranges, 84; electric refrigerators, 108; electric water heaters, in 30, 40, 50 gallons and up, 57; electric dishwashers, 6; garbage disposers, 18; home freezers, 41, in contrast to only 3 the previous month; standard washers, 52; automatic washers, 38; ironers, 12; dryers, 12; combination radio-phonographs, 80; standard radios, 98; sweepers, 57; mixers, 55, as compared to 18 in October; electric blankets, 34; heating pads, 20; room heaters, 48; coffee makers, 65; grills and waffle irons, 33; irons, 93; roasters, 27; toasters, 26; fans, 27; hot plates, 10; and broilers 5, Shannahan reported.

Dollar volume of kitchen cabinets for the month has been reported as $3,085.

Fort Wayne is a typical manufacing-agricultural city of 125,000 and a metropolitan center for an area of approximately 50 miles in all directions.

Sell BONDERIZED appliances

Customers will pass you by, next time they buy, if they have a finish failure on an appliance you sell them today. Your customer's satisfaction—and your business future—is safeguarded when the appliance is Bonderized to make the paint finish last longer.

Bonderizing is a process, used by leading manufacturers of metal products, which anchors the paint securely to the base metal. It is a stout resistor of corrosion, too, acting to prevent the spread of this enemy of fine paint finishes. Even when the finish is scratched by accidental injury, the Bonderite coating confines finish failure to the scratch itself.

Most refrigerators, home freezers, and home appliances are protected by Bonderizing. It is to your advantage to sell these appliances. You can be sure that the paint finish of a Bonderized appliance will keep its eye appeal through years of service, guarding customer satisfaction.

Use Bonderizing as a sales feature, too. Women know its value from experience. Be sure to tell your customers, "It's Bonderized."

The Bonderite seal on a product is a mark of quality. It indicates a longer lasting paint finish securely anchored by corrosion-resistant Bonderizing.

Bonderite, Parco, Parco Lubrite—Reg. U. S. Pat. Off.

Parker

PARKER RUST PROOF COMPANY
2170 East Milwaukee Ave.
Detroit 11, Michigan

BONDERIZING Holds Paint to Metal . . . PARKERIZING Inhibits Rust . . . PARCO LUBRIZING Retards Wear on Friction Surfaces

Executive Specialist in

Commercial Refrigeration and Air Conditioning Merchandising—Sales—Sales Promotion—Organization Development—Sales Production—Sales Management — Heating — Engineering —Credit—Dealer & Distributor Knowledge—Sales Psychology—

15 Years Experience in Industry

If interested in high class executive and have above ordinary position to offer
Write Box 2634
Air Conditioning & Refrigeration News

EXPERIENCED MEN CAN SERVE YOU BEST

COMPLETE LINE OF REFRIGERATION SUPPLIES TOOLS AND ACCESSORIES

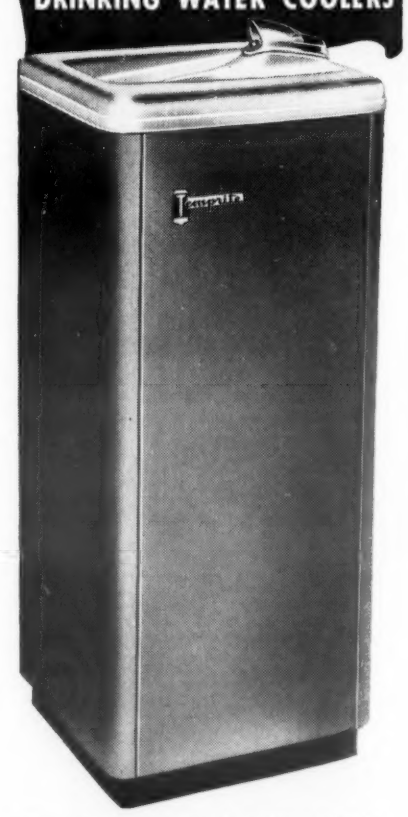
EACH MONTH THIS FELLOW APPEARS IN
THE LIQUID LINE
THE INDUSTRY'S OLDEST HOUSE ORGAN
ARE YOU ON OUR MAILING LIST?

WEST COAST SUPPLY JOBBERS SINCE 1928

REFRIGERATION SERVICE INC.
3109 BEVERLY BLVD
LOS ANGELES 4 CALIF

SMART

STREAMLINED STYLING in the New TEMPRITE DRINKING WATER COOLERS



1. Smart, streamlined styling blends harmoniously into all surroundings. **2.** Effortless finger-tip pressure produces a steady stream of perfect-temperature drinking water. **3.** No spouting, no splashing, no annoying fluctuations in water flow. **4.** Bubbler design gives maximum sanitary protection.

User Protected by Temprite's 5-Year Warranty Plan

All models meet requirements of the National Bureau of Standards and Underwriters Laboratories, Inc.

Manufacturers of water cooling equipment since 1929.

TEMPRITE PRODUCTS CORP.
43 PIQUETTE AVE. DETROIT 2, MICH.

Dept. Stores May Televise Product Information To Push Sales of Appliances

NEW YORK CITY — Department store managers may soon have a new promotional aid for household appliance sales: intra-store television.

Results from a five-month study of 13 retail stores scattered over the nation have brought to light this new value of video. About 5,000 patrons were interviewed for Allied Stores Corp. and a record of their reaction to the promotional use of television made public through the New York university School of Retailing.

As a whole, the survey reflects the value of television both as a customer-helper and an incentive to store sales.

According to the customer-sampling, the utilization of video for product information and demonstration not only achieves a wider display of goods in the store, but also effectively acquaints the patron with product-use. It also builds "impulse sales in amounts not otherwise possible by exposing upper-floor merchandise to main-floor traffic."

The advent of the television screen on display floors may mean a 200% spurt in merchandise sales, predicted the poll. In actual cases, the employment of video resulted in an increase in sales traffic averaging 30%. Four out of 10 of the patrons were purchasers and 25% of sales were to "impulse" buyers.

While such statistics tend to make the department store managers happy, the customers are every bit as pleased. Over 60% said that televised product information materially eased their shopping problem by showing them where particular items could be found in the store and how such merchandise should be selected.

Knoxville Code--

(Concluded from Page 1)

By Knoxville Major Appliance Bureau," Jan. 31, 1948. "The Major Appliance Bureau recommends to its members the following rules of conduct:

"1. Carrying charges should be *made on all electrical appliances of* [words in italics added] not less than 6% on the unpaid balance per year.

"2. Dealers should (will) observe fair competitive trade practices, maintaining established prices, assuring a fair profit, thereby permitting the fulfillment of the manufacturer's warranty terms and any additional responsibilities by the dealer to the customer.

"3. All dealers will submit to the Bureau Secretary their cash prices on merchandise. These prices will be interchanged among the other dealers on request. No cash discounts should (will) be allowed from the above prices.

"4. All products advertised should (will) give prices corresponding with above list, and should (will) show whether 'installed' or 'delivered only.'

"5. Dealers should (will) accept no business assistance from competitors' salesmen, and if offered an order by a salesman of another dealer member, same should (will) be reported immediately to the salesman's employer.

"6. Dealers should insist that salesmen do not promote sales through split commissions, customer kickbacks, or down payment assistance.

"7. A committee, appointed by the President and approved by the Board of Directors, will handle all complaints turned in to the Bureau. This committee will investigate claims by prospective customers of any violation of the high aims of the members of the association, such claims to be immediately brought to the attention of the dealer concerned and their truth or untruth determined.

"8. Each member should (agrees to) follow the plans, if any, as recommended (adopted) by the Bureau on trade-ins, allowances, terms, etc.

"9. At any time if any one dealer wishes to drop out of the association (or wishes to discontinue following any of the Code of Ethics), he agrees to give written notice to the Secretary of the association immediately."

Operator Uses Home Freezer Rental Plan To Avert 95% of Locker Cancellations

OAKLAND, Calif. — Selling home freezers is good business for the locker plant operator, Frank Grace of the Foodbank, a frozen food locker service with plants here and in Berkeley and Hayward, believes.

In five months, Grace claims, Foodbank:

Sold 1,300 home freezers.

Prevented from 95 to 97% of prospective locker cancellations.

Expanded by 10 to 20 times its sale of meat, frozen foods, and service to its regular customers.

"I believe it would even pay if we got nothing out of the freezer sale because of the increased business that results," he averred.

The Foodbank sales plan is to offer its locker customers a small capacity Crosley Frostmaster home freezer together with a three year rental of a standard locker unit for $199.50. This gives the customer approximately 10 cu. ft. of storage space, according to Grace.

Promotion has been through a floor display of freezers in the store section of the plant, circulars, folders, and direct solicitation. One potent source of prospects is a checklist of customers whose locker rental period is about up.

Though only regular customers had been contacted, Grace said that Foodbank intended to expand its sales activity to include the general public through advertising and a better follow up system. This plan, he estimated, should drive the plant's sales total to 5,000-8,000 units by the end of 1948.

Freezer purchasers are also offered free delivery service that will bring to their homes onces every two weeks any amount of food they desire. The packages, kept in insulated cartons, is delivered by refrigerated truck. About 95% of his customers utilize this service, Grace said.

Grace figured that approximately 30% of his customers have been sold freezers. When units have been placed in a home on a trial basis, only about 4% have been returned, he noted.

Once a freezer has been sold, commercially packed frozen food purchases go up immediately, he asserted. Though a discount is given for the purchase of 24 packages of frozen fruits and vegetables, most orders exceed that quantity. The average delivery consists of $40 to $45 worth of frozen foods, he stated. Ice cream sales have quadrupled.

Though many customers place their orders over the telephone, Grace has been surprised to find out that he has not lost personal contact with them. They seem to have a more friendly interest in the plant and drop around every once in a while to see if there is anything new, he claims.

Grace said that he handles the servicing on the freezers he sells. When a breakdown occurs, he rushes a standby unit to the customer and returns the defective unit to the plant for a check-up, he explained.

Distributor Hints End Of Bendix Washer Quotas

NEW YORK CITY—Whether local Bendix automatic washer dealers will long remain on allocations depends on the success of current advertising featuring "extremely liberal" consumer credit terms, Gerald O. Kaye, general sales manager for Bruno-New York, Inc., metropolitan area distributor, indicated recently.

Though he claimed that Bendix washer sales were "phenomenally good" during January, Kaye declared that "precautionary measures" were being taken against the possibility of a sudden sales drop. The credit advertising, placed cooperatively by Bruno and several dealers, is an example of such measures, he said.

Stating that Bruno-New York has no inventories on the washers, he admitted that some dealers have passed up an allocation, either in full or partially—but only once. The merchandise thus passed up was immediately shipped to dealers who wanted units above their quota, according to Kaye.

Kaye emphasized that an early end to allocations was a possibility only.

1'ST IN LINE AT THIRST TIME!

OASIS — made by the world's largest maker of electric drinking water coolers — is *first in line* when it comes to delivering complete thirst relief at low cost. Write for details.

The EBCO Manufacturing Co.
401 W. Town St., Cols. 8, Ohio

New Padded Truck for APPLIANCES AND FURNITURE

This convenient truck will easily handle all appliances and furniture up to 800 lbs. Also handles crates, bales, barrels. Two flat surfaces hardwood covered with thick pad of carpet. Tube steel, 54" ht.; 24" nose; 13' web strap. 8 x 2 rubber wheels. Price $31.95. Model 80. Free trial. Return collect if not pleased. Immediate delivery.

HANDEES CO.
Dept. AC-1
Bloomington, Illinois

GET GENUINE WAGNER Commutators

They are built as an original motor part—your assurance of an accurate all-around fit for correct operation. Liberal design provides extra strength, permits refacing several times, if necessary, with safety. Segments are accurately milled to facilitate connection of rotor leads. Get them now from your Wagner distributor. Name on request. M47-28

Wagner Electric Corporation
ESTABLISHED 1891
6471 Plymouth Avenue, St. Louis 14, Mo., U. S. A.
ELECTRICAL AND AUTOMOTIVE PRODUCTS

FREEZER SENTRY

BUZZ-Z-Z when the Freezer breaks down . . .

● Every owner of a home freezer needs this signaling device to insure quick warning of mechanical failures. Whether you sell freezers or not you can sell the Freezer Sentry. Every day more freezers, without any signaling device, are being delivered in your territory. You know the owners. They need the Freezer Sentry. Particularly important for a rural owner at a distance from service facilities.

Here Is Why You Should Sell the Freezer Sentry

- A package item. Installed by anyone in two minutes.
- Positive action. No thermostat to get out of order. A drop of mercury makes the contact.
- Battery operated. Trickle charger insures 5-year battery life and 100 hours buzzer operation.
- An extra good profit margin for you.

Immediate delivery. Write today for descriptive material and price sheet.

JEWETT ASSOCIATES
1053 MAIN ST. BUFFALO 8, N. Y.

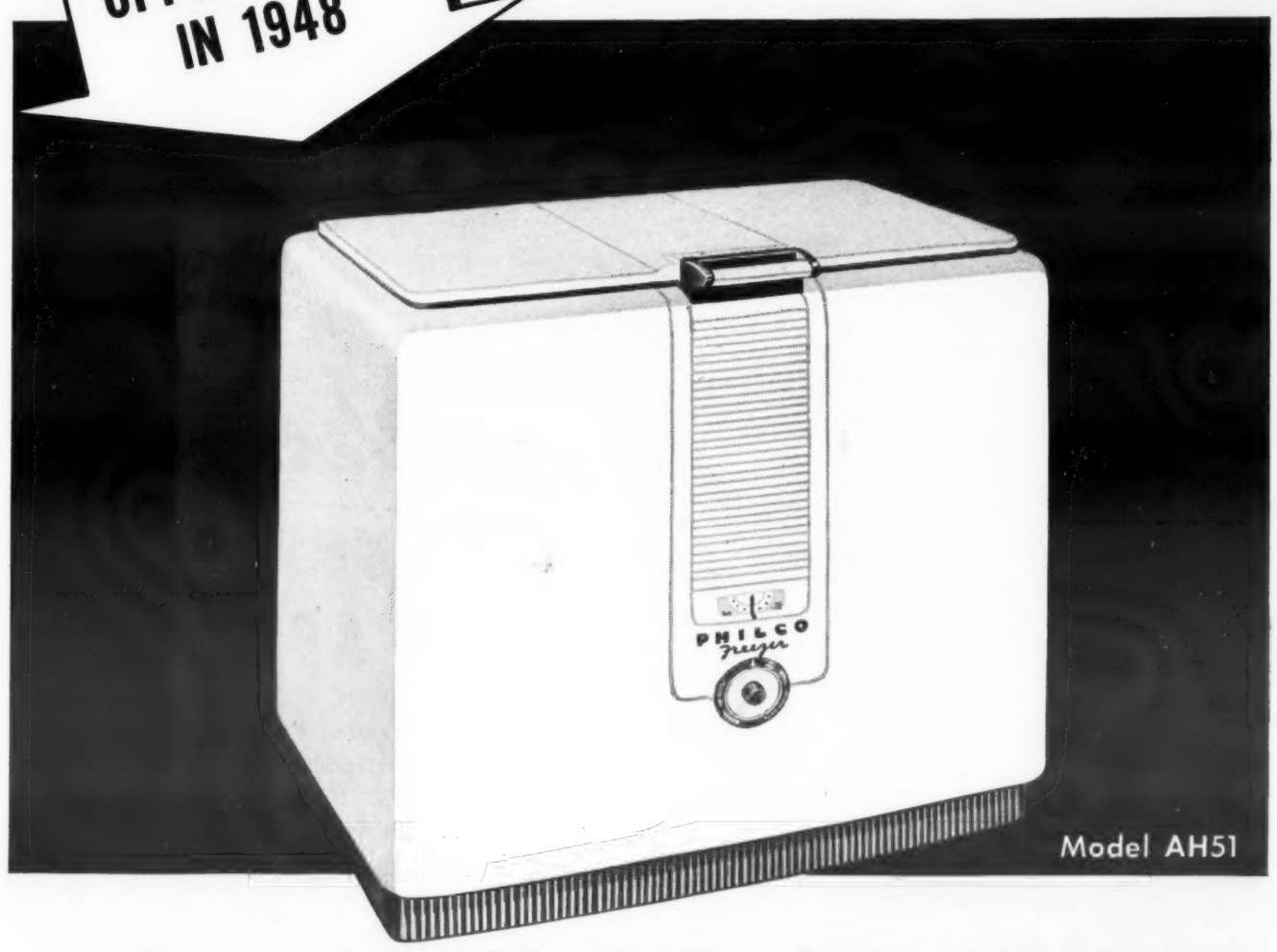
Just plug in - and use "Character"
THE WORLD'S SMARTEST
Self-Contained Florist Display Refrigerators

- Unitized
- Stainless Steel Front
- Large, Display Glass Sliding Doors
- Fluorescent Lighting
- Genuine Cemetric Tile Floor
- Black Panelyte and Stainless Steel Trim
- Stepped-Up Display Stands

No. 630 Junior S/C
Size 72" x 34" x 86"
Write or call for our latest literature
"Character" REFRIGERATORS Corp.
Formerly A. & S. Refrigerator Co.
645 BROADWAY — NEW YORK 12, N. Y.
Tel: GRamercy 7-3590

DON'T MISS THIS PLUS PROFIT OPPORTUNITY IN 1948

YES, there's money in selling Philco Freezers. But for locker plant operators, the sale of a Philco is only the *beginning* of new profits . . . from increased sales of packaged frozen foods and from greater demand for processing service. Find out now why so many locker plants sell the sensationally popular Philco Freezer.



Model AH51

THE SENSATIONAL PHILCO FREEZER

LEADS THEM ALL IN SELLING FEATURES —PHILCO AH-51— 5 CU. FT.

- Patented 3-compartment design.
- Extremely cold center compartment —as low as 15° below zero.
- Counterbalanced lid.
- Built-in lid lock.
- Temperature Control and Outside Thermometer.
- Guardian Bell.

. . . perfect team-mate for the rental locker

Rental lockers for bulk storage of customers' "frozen assets"—*plus* handy 5 or 2½ cu. ft. Philco Freezers for home supplies, making frozen foods available for every meal. That's the combination that is keeping business humming in *all* departments of many successful locker plants. And you'll find a Philco easier to sell because of its greater public acceptance . . . its exclusive features and efficient, care-free operation . . . its deluxe appearance. Yes, from every standpoint, the Philco Freezer offers locker plants the greatest plus profit opportunity of 1948. Write today for full information to Philco Corporation, Philadelphia 34, Penna.

24-tray Ice Cube Maker

LOOKS GOOD • IS GOOD • SELLS GOOD

SCCU-24 A fine cube maker that really works. 336 large cubes (24 quick-release trays, 14 cubes to a tray), each cube measures 1⅝" x 1½" x 1¾", totalling 48 pounds of ice. (Cube-maker by Bush). Cabinet is well insulated and measures over-all, width 26", depth 20", height 40½". 20 gauge polished, rust-proof, stainless steel, 302-18-8, No. 4 mill finish front and top. Sides of aluminum. Interior satin finish stainless steel — 302-18-8, streamlined ends, concealed brass chrome plated hardware. Designed for easy servicing. Expansion valve is right out in front. Powered by a ⅓ H.P. machine. Order now for quick delivery. (Can also be supplied in remote models.) Write for our illustrated catalogue.

Exclusive Distributorship Available.

FRIGITEMP CORP. 931 Bergen Street, Brooklyn 16, N. Y. Main 2-9093

BEAUTY PLUS UTILITY

Larkin refrigeration products are modern proof that engineering beauty can add to functional efficiency. Originator of the Cross Fin Coil, Larkin also produces highest quality in Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—Evaporative Condensers—Air Conditioning Units—Instantaneous Water Coolers—and other superlative equipment for commercial and industrial refrigeration.

LARKIN COILS 519 MEMORIAL DRIVE • S•E• ATLANTA • GEORGIA

Independently-Powered Railroad Train Air Conditioning System Permits Greater Use of Engine Drive for Pulling

PITTSBURGH — A new railroad passenger car carrying its own complete alternating current-operated "weather factory"—entirely independent of the locomotive for its power—soon will be tested on a major railroad, it was reported today by H. H. Hanft, transportation engineer of the Westinghouse Electric Corp.

Speaking at the annual winter meeting of the American Institute of Electrical Engineers, Hanft said the car would be subjected to varying climatic conditions of summer, winter, mountain, desert, and northern plain operations, and later would be placed in revenue operations.

"When used on a large scale," the engineer predicted, while discussing his paper, "cars like it can result in greater passenger comfort and convenience, improved service reliability for railroads, and greater train speed and loads."

The recently-developed unit, built by the Sturtevant Division of Westinghouse, contains its own a.c. power plant and the necessary air conditioning and heating equipment to provide air that will be cooled and dried in summer, heated in winter, and electrostatically cleansed of dust and smoke all year-round. On the car passengers will drink electrically-cooled water and will read by flicker-free fluorescent lights.

Power to operate all this apparatus is supplied by a 30-kilovolt-ampere Diesel-driven alternating current generator installed under the car, Hanft said. Such a self-contained power plant permits locomotive power normally diverted to operate car comfort equipment to be applied entirely to its fundamental job of traction.

To illustrate the serious power drain imposed on locomotives today, Hanft pointed out that a conventional 14-car train, with electrically-operated diners, that draws power from the "Iron Horse" consumes about 650 hp., or approximately one-fifth of the locomotive's output.

Use of an a.c. air conditioning system also permits reducing weight of the railroad car by 3 to 5 tons, or 5 to 8%. Most passenger cars now on order will carry d.c. electro-mechanical air cooling systems, the engineer said. Such cars require huge storage batteries, weighing 4,800 to 9,500 pounds, to operate the equipment when trains are at a standstill and the locomotives are not furnishing power.

In the a.c. unit, a battery weighing only 700 pounds is needed, for emergency lighting and for cranking the engine. An additional weight saving of 1,800 pounds comes from using lighter weight cable and conduit in the a.c. car.

Heart of the thermostat-controlled air conditioning installation are the twin 5-hp. hermetically-sealed compressors carried under the car. Other principal components are the condenser, also mounted under the car, thermostats and the overhead-mounted evaporator "package" consisting of blowers, evaporator and electric strip heaters.

TWO-THIRDS RECIRCULATED

The equipment combines to furnish 2,400 c.f.m. conditioned air, with two-thirds of this supply recirculated from the car itself and one-third being "made-up" from outside the car.

On cool humid days, below 60° F., excessive moisture in the air is reduced to a comfortable level by action of the car heating system. When outdoor temperature climbs above 60°, the first compressor is started automatically and excess water vapor in the car air stream condenses as it comes in contact with the cold evaporator surface, and thus is removed from the car.

On days when the humidity is unusually high and it, rather than the heat, is chiefly responsible for discomfort to passengers, the air must be dropped to a low temperature in order to remove enough of the annoying moisture. It is then reheated back to a comfortable level.

When temperature inside the car rises above 75°, the second compressor goes into operation and operates as long as is necessary to maintain car air at a 75° level.

'DOUBLE DUTY' REFRIGERANT

For heating purposes, the car may be equipped with two independent heat sources, relying on steam from the locomotive only in emergencies. Chief source of heat will be 36 gallons of "double duty" coolant, which after cooling the engine and absorbing heat in the process is sent to floor heating coils. Afterwards, the coolant is returned to the engine jacket to repeat its cycle.

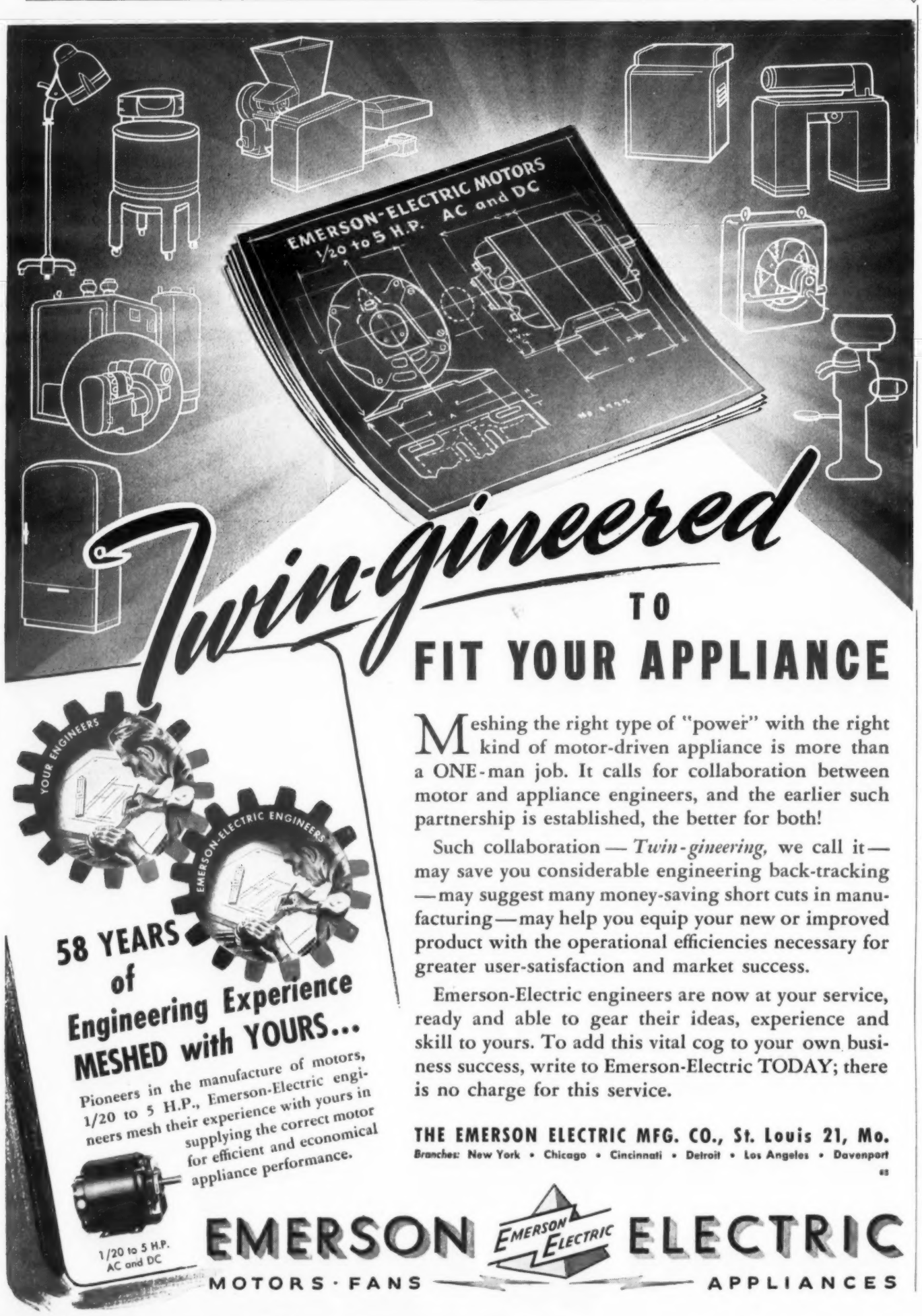
Additional heat will be supplied by electric strip heaters mounted overhead. They warm air passing into the passenger section and in the duct which introduces outside air. These heaters are essentially strips of steel alloy, heated electrically like the heating element of a toaster and radiating their heat.

With each car able to provide its own heat, on cold winter days heat requirements no longer will be a limiting factor on train length.

Before passing through the cooling and dehumidifying coil in the evaporator section, the entire air supply may be electrostatically cleaned by a Precipitron.

Whether the air has been cooled, heated, or dehumidified, before entering the passenger space it may be exposed to slender Sterilamp germicidal tubes, which radiate ultra-violet rays deadly to more than 90% of all bacteria found in the air.

Another expected advantage of the a.c. unit is that it will materially reduce maintenance required on similar purposed d.c. equipment, Hanft said. The hermetically-sealed compressors, used only on a.c., eliminate the shaft seals, couplings, pulleys, belts and other trouble points that require frequent servicing on d.c. equipment.



Twin-gineered TO FIT YOUR APPLIANCE

58 YEARS of Engineering Experience MESHED with YOURS...

Pioneers in the manufacture of motors, 1/20 to 5 H.P., Emerson-Electric engineers mesh their experience with yours in supplying the correct motor for efficient and economical appliance performance.

1/20 to 5 H.P. AC and DC

Meshing the right type of "power" with the right kind of motor-driven appliance is more than a ONE-man job. It calls for collaboration between motor and appliance engineers, and the earlier such partnership is established, the better for both!

Such collaboration — *Twin-gineering,* we call it — may save you considerable engineering back-tracking — may suggest many money-saving short cuts in manufacturing — may help you equip your new or improved product with the operational efficiencies necessary for greater user-satisfaction and market success.

Emerson-Electric engineers are now at your service, ready and able to gear their ideas, experience and skill to yours. To add this vital cog to your own business success, write to Emerson-Electric TODAY; there is no charge for this service.

THE EMERSON ELECTRIC MFG. CO., St. Louis 21, Mo.

Branches: New York • Chicago • Cincinnati • Detroit • Los Angeles • Davenport

EMERSON ELECTRIC

MOTORS · FANS — APPLIANCES

KNOW PAR CONDENSING UNITS

MARION, INDIANA

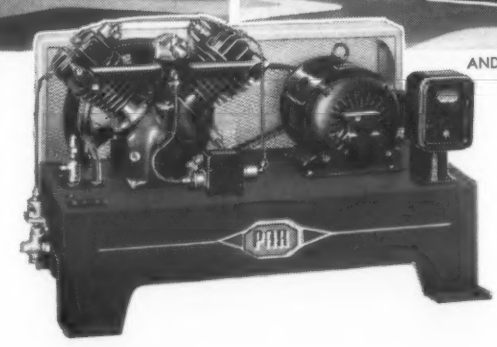
TOLEDO, OHIO

ANDERSON, INDIANA

DEFIANCE, OHIO

ANDERSON, INDIANA

PAR—Condensing Unit line sold exclusively through Franchised Refrigeration Equipment Wholesalers!



"See the Par closer - coupled heavy duty units at the All-Industry Exposition, Booth, 102-201."

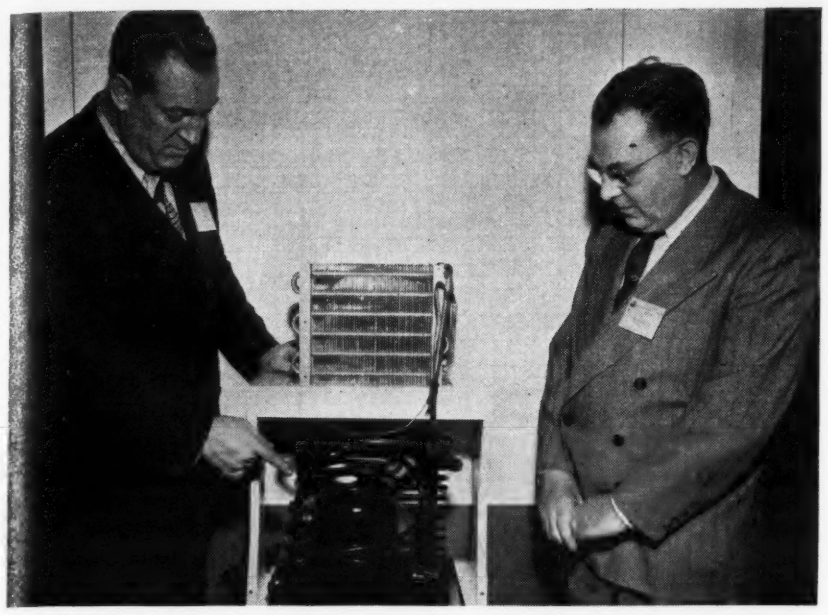
THESE five modern plants, equipped with complete engineering departments and latest type production machines, comprise the manufacturing facilities of the Lynch Corporation, manufacturers of Par Condensing Units. Our many years of experience in the development and manufacture of precision machinery is transmitted into every Par unit. The wide range of models and sizes provides for tailored installations . . . a proper model and proper size to fit every application . . . air-cooled and water-cooled . . . close-coupled and heavy-duty type . . . and sizes from ⅙ h.p. to 5 h.p. Compare before you buy, for by comparison—you'll buy Par. See your Par Wholesaler or write for Par Catalog R-98.

. . By Comparison — You'll Buy PAR

LYNCH CORPORATION

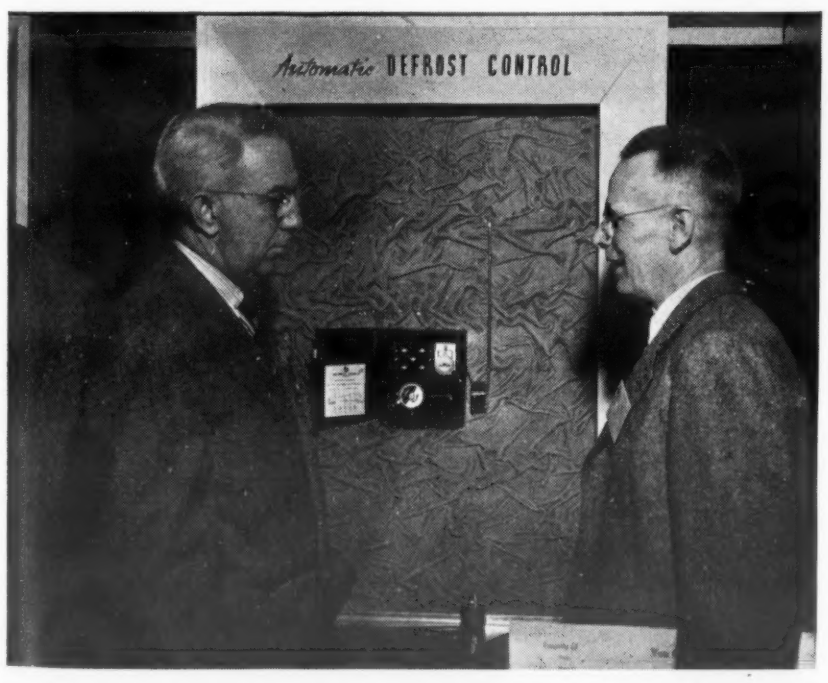
Par Compressor Division TOLEDO 1, OHIO U.S.A.

New Product Developments Shown



Here is the new Kelvinator "complete in one assembly" commercial refrigeration system, Model V-20S. It includes hermetic compressor, a heat exchanger, and forced-convection evaporator. E. G. Haight (left), Kelvinator sales engineer, points out some of the features to A. G. Marcotte, Marcotte Refrigeration Co., Kankakee, Ill.

Leonard Skalicky of American Refrigerator & Machine, Inc. goes over the features of American's new 15-cu. ft. food freezer, one of the models in the new 1948 line, for E. Greenberg and Al Savran of the Savran Refrigerator Co., Philadelphia. The freezer has both sharp freeze and storage space and features an encased cooling system which the company claims boosts cooling efficiency.



The White-Rodgers automatic defrost control for refrigeration systems is the subject for discussion by E. E. Harwood, division manager for White-Rodgers Electric Co. (left), and D. R. Koontz, refrigeration engineer for the Atlantic & Pacific Tea Co. in Pittsburgh.

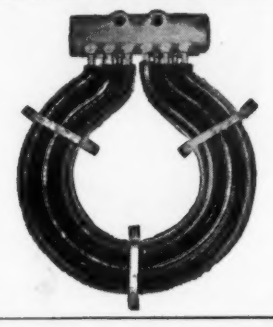
C. D. Garner of the Colonial Grocery chain in Atlanta checks over samples of new and replacement seals and valve plates for refrigeration compressors being made by Chicago Seal Co.

A self-serve display case for real "heavy duty" market service is this Fogel 10-ft. case, featuring sliding rear-loading mirrored doors. Admiring it is Paul Masse, Masse Electric Refrigeration, Montreal.

(Right) The white round-shaped object raised above the cabinet is the circular Yoder cold-plate used in the new Strata-Aire milk cooler. Use of this plate plus design of cabinet permits cans to slide out of front of cabinet, and affords rapid pull-down of temperature.

ROME-CONDENSER

★ **Jointless Type** ★



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6. *And again, due to its unique molded construction, the refrigerant cannot channel around the desiccant of the Sporlan Catch-All. All of the refrigerant must go through the molded porous cylinder.*
7. *In addition to efficiently drying the refrigerant, the molded porous cylinder of the Sporlan Catch-All will catch all scale, solder particles, carbon, sludge, dirt or any other foreign matter as minute as 9 microns with negligible pressure drop.*

. . . THE PERFECT FILTER-DRIER!

The use of oversize driers does *not* solve the moisture problem on most jobs. The only real solution is to use a drier that dries down to a *low end point* . . . a point *so low* that any remaining moisture is absolutely harmless!

HERE IS WHY THE SPORLAN CATCH-ALL IS THE PERFECT FILTER-DRIER

If you want refrigeration systems that are REALLY DRY . . . *install* SPORLAN *Catch-Alls and get Peak Performance on all installations.*

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★ THE CATCH-ALL IS OBTAINABLE AT ALL SPORLAN WHOLESALERS

One of a series from

The KEY to AIR CONDITIONING

by James J. LaSalvia

Air Distribution (Cont.)

THE 'THROW' OF AIR FROM GRILLES OR REGISTERS

The distance between the face of the grille or register, across the room or space over which the air must travel is known as the "throw."

The throw is taken as a straight line perpendicular to the grille or register.

Fig. 5 shows an illustration of a side wall grille supplying air across a room.

The throw is one of the main factors in selecting grilles or registers.

In order to safeguard the throw, it is necessary to keep the top of the grille or register at least 6 in. below the ceiling with no obstruction, or the top must be even with or lower than the bottom of any beam or obstruction under which the air must pass.

It is also important that the air should lose all of its air motion when it meets across the room an imaginary line 6 ft. above the floor. This imaginary line is taken 1 ft. above the breathing line.

HEIGHT OF GRILLE OR REGISTER ABOVE FLOOR

The height of the grille or register above the floor is another factor which must be considered together with the throw, in determining the proper size of grille or register.

The same throw and the height of the grille could be 10 ft. above the floor. This would have a certain velocity. If the height of the grille above the floor is increased, the velocity should be decreased, and conversely if the height of the grille is made less than 10 ft., then the velocity should be increased.

Therefore, we can say, holding the volume of air and the throw constant, the higher the location of the grille the smaller the velocity that should be used through the grille, and the greater the velocity that should be used on grilles lesser in height above the floor.

Fig. 6 illustrates velocities required for various ratios of throw to height of grille above the floor. This illustrates the straight-flow grille only, and the deflection type grilles would perform in the same manner except that they would have higher velocities.

EXAMPLE

Keep the volume of air constant, with a throw of 50 ft., the grille being 10 ft. above the floor. What is the velocity of the air that must leave the grille?

Referring to Fig. 6, this represents Point A. Point A is 6 ft. above the floor or 1 ft. above the breathing line, the point at which the air must be delivered so as not to cause any drafts, and where the force of the air must be all spent. The velocity of this case would be 1,500 f.p.m.

If the grille was raised to 20 ft. above the floor and the throw was still 50 ft., then Point A would still be the spot at which air could be supplied. In this case the velocity would be 400 f.p.m.

If the grille was raised to 35 ft. above the floor and the throw was still held at 50 ft., Point A is still the place at which air could be supplied. In this case the velocity would be 200 f.p.m.

Velocities through the grilles should not exceed approximately 2,000 f.p.m. for good practice. Fig. 6 shows that with 2,000 f.p.m. velocity and with a height of grille 10 ft. above the floor that the air can be sent 60 ft. This should be the limit for this height. For grilles less than 10 ft. above floor, the throw should be less than 60 ft., and grilles located above 10 ft. can use a greater throw, as indicated in Fig. 6.

(To Be Continued)

Velocities Required for Various Ratios of Throw to Height of Straight-Flow Grille

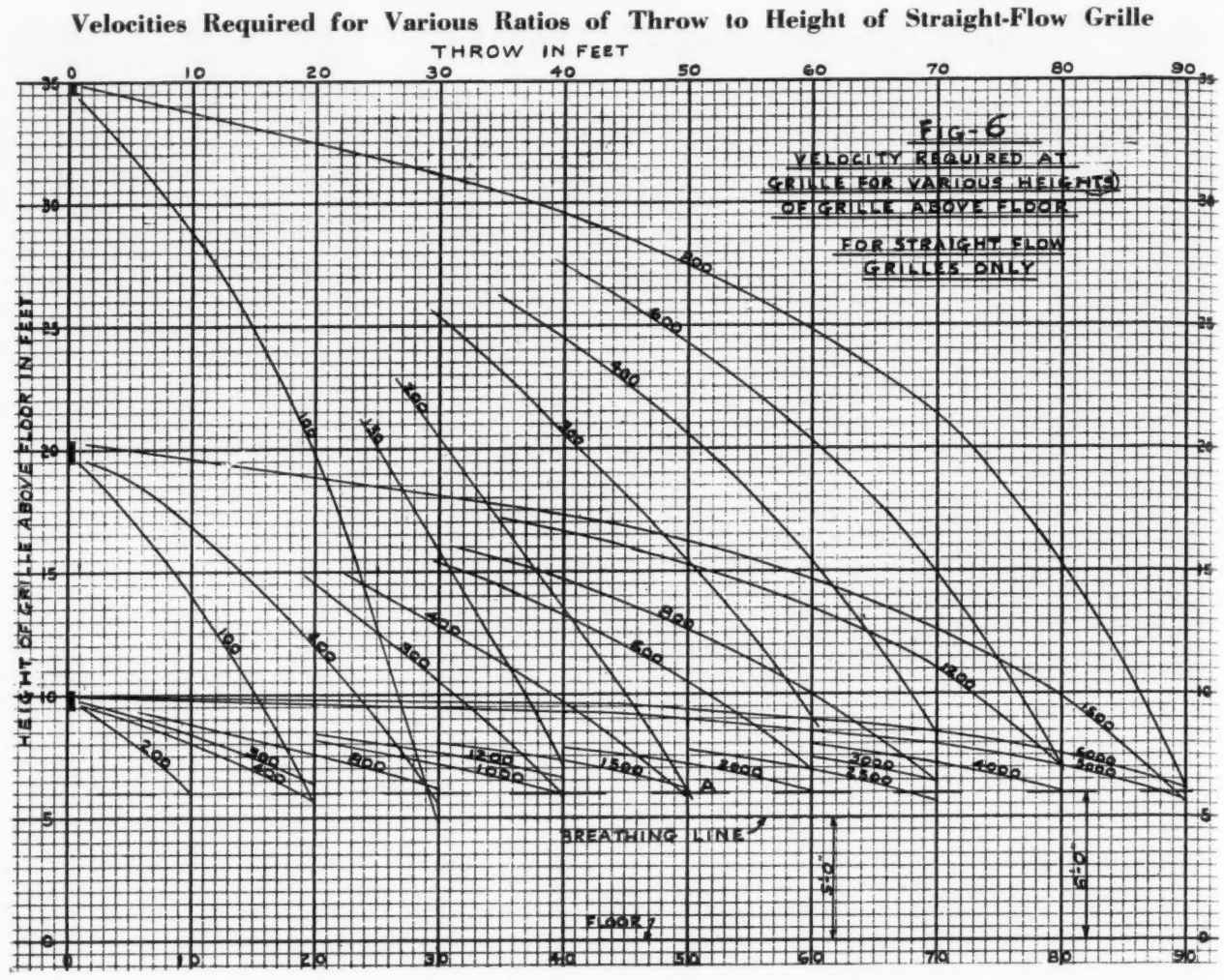

Fig. 6—As explained in the accompanying text, this chart shows the velocity at which air must leave a straight-throw grille to maintain constant air volume for various grille heights.

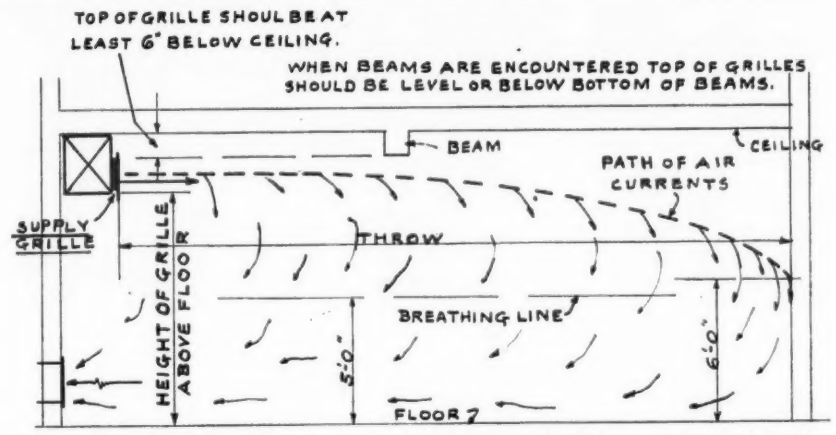

Fig. 5 indicates the path of air in a room supplied by a side wall grille.

Suggested Uses Outlined In New Wabash Catalog Of Refrigeration Line

CHICAGO—A new 16-page catalog of refrigeration products manufactured by the Wabash Mfg. Co. here was released recently by the company.

The catalog, No. 481 dated January, 1948, not only gives prices and descriptions of various Wabash products but also contains detailed accounts of construction and recommended uses in refrigeration applications.

Other features included in the new catalog are:

An article on Poronze depth filters, used in the company's line of dryers and strainers,

An article describing the Wabash Actex unit, which combines accumulator, capillary tube, and heat exchanger, for use in refrigeration machines employing capillary tube to control the flow of liquid refrigerant.

A description of Wabash manufacturing and testing methods, written by Edward W. Mack, president and general manager, and

A review of engineering research done by the company in filtering and capillary tubing written by Martin T. Cahenzli, Jr., vice president and chief engineer.

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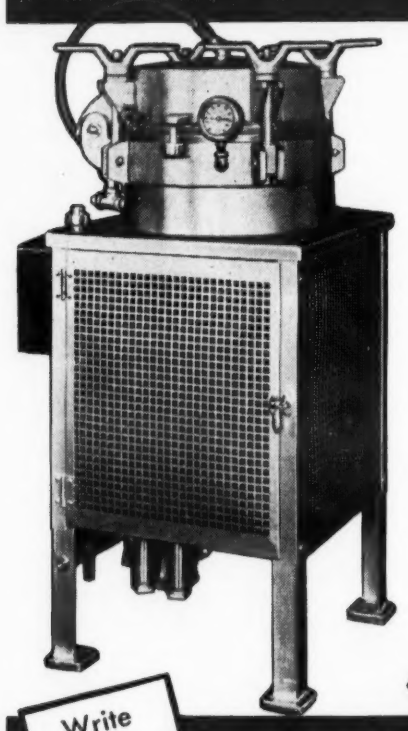
For Complete Removal of Solids, Moisture and Gases From New and Used Lubricating and Sealing Oils.



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Ranco Refrigeration Controls—used on more refrigeration equipment than any other make—help make your work as a refrigeration service man easier and more profitable Built by specialists in refrigeration, Ranco Controls provide the trouble-free service that satisfies customers and helps build bigger profits for you.

Ranco O-1401 and O-1402 pressure controls are for general applications requiring differentials of 6 lbs. or more. Single pole, snap-acting switch; Graduated visible scales calibrated for range and differential settings; Range screw changes cut-out and cut-in simultaneously; differential screw changes cut-out only.

Ranco Inc. COLUMBUS 1, OHIO
World's Largest Manufacturers of REFRIGERATION CONTROLS

Quarterly Earnings At York Double Mark Of Previous Year

YORK, Pa.—York Corp., manufacturer of refrigerating and air conditioning equipment, reported earnings for the first three months of its fiscal year, to Dec. 31, 1947, of $927,721, compared with $411,883 for the similar period a year ago.

Net sales were $12,890,898 as compared with $10,165,751 the previous year.

The company reported orders booked during the quarter amounted to $9,358,000 as compared with $8,432,000 in the first quarter of the previous year. Uncompleted contracts and orders on hand but not recorded amounted to $24,800,000 on Dec. 31, 1947.

In commenting on the results for the first quarter of the company's fiscal year, President Stewart E. Lauer said:

"While the results for the first quarter ending Dec. 31 show a satisfactory increase over the corresponding period a year ago, it is necessary to look beyond the bare figures before using them as a barometer for the year's performance.

"Our monthly national surveys of 'business ahead' for us show a good trend, and several new products which should be ready for sales chanels in the next few months add firmness to the over-all prospect.

"Our plant development program is well in line with the schedule given in our annual report of Dec. 15, 1947, covering last year's operations. There are some minor disappointments in a few delayed tool shipments and corrections to tools which do not meet specified requirements. But the rate at which peak scheduled production can be reached is always problematical, depending upon the proper meshing of all tools in sequence operation. We are having no difficulty in securing employes with proper qualifications, as trainees.

"There are other deterrents and uncertainties, however. As we enter the third postwar year, we are still faced with shortages. This year it is principally steel, and it is serious. Since a number of our new products contains a high percentage of steel, we are facing difficulties but are using every means at our command to turn out the highest number of units possible for 1948.

"Inflation seems to be reaching a point where it might become unmanageable. With higher operating costs in prospect, the great majority of manufacturers of consumer durable goods, whose prices have never caught up with costs, will be 'on the spot' and will, therefore, have to increase prices.

"This comes at a time when the probability of Congress passing control legislation is much more real than the average citizen wants to believe. Once started, this could lead to regimentation as rigid as during World War II wiith ration books, priority certificates, and thriving black markets."

Food and Money Saving Stressed In 4-Point Program for Freezing

CINCINNATI — A four-point program designed to help the American housewife conserve the nation's food supply and at the same time save money in 1948 has been suggested by the home economics department of the Crosley Division, Avco Mfg. Corp.

The program is based on the use of home frozen food cabinets, which are described as "one answer to the problem of saving millions of pounds of food which the government says we waste every day."

The four points:

1. Freeze food, cooked or uncooked, that is not used at once. "Most left-overs can be kept completely fresh in a home freezer until you are ready to use them. Saved in a frozen food cabinet, cooked meats, vegetables, and desserts can make appetizing re-appearances on the table days or weeks later. Freezing left-overs conserves food and puts extra dollars in the pocketbook."

2. Make use of packaged frozen foods. "Much food may be wasted in home processing and preparation. The scientific processing of frozen foods seeks to minimize food loss. And everything that comes from the package in your home is usable and needs no trimming or sorting."

3. Buy food in quantity. "It is more economical to buy large cans of fruit juice, or the big turkey, or large portions of beef for stews. After a large can of fruit juice is opened and partly used, the rest of the juice can be frozen and kept fresh as long as you like in the freezer. The meats can be frozen and taken out for use as desired. These and all other bulk items can be bought when they are on sale. Freezing does not destroy flavor or vitamin content.

"When an over-abundant crop of vegetables or fruits arises much spoilage might be saved if the excess could be sold out at once to individuals for freezing and storage at home. The rapidly expanding use of frozen food cabinets in this country is bringing about greater and greater savings through benefits such as this."

4. Prepare foods in quantity. "From fuel and time-saving standpoints, it is almost as inexpensive to bake two cakes or three or four meat loaves as to bake one," says Mrs. Catherine Beck, home economist for Crosley. "Purchasing foods in bulk for quantity cooking also is a money saver. The housewife can cook on a large scale whenever convenient, store the 'planned-overs' in her freezer, and bring them out as the occasions arise; and also, she can save time by shopping at one or two week intervals and going in for long-range menu preparation."

$100,000 Service Firm Set Up

HASTINGS, Neb.—The Larkin Co. of Hastings has taken out a Nebraska charter to engage in the sale, installation, and servicing of air conditioning and refrigeration equipment, with $100,000 capital.

Wyoming Frozen, Cold Storage Houses Handled 36,827 Big Game Animals

CHEYENNE, Wyo. — Frozen food locker plants and cold storage companies in Wyoming handled an all-time high of 36,827 antelope, deer, elk, moose, bear, and mountain sheep during the 1947 big game season, it is reported by the state game and fish department.

The previous high was in 1943 with a total of 33,609 big game animals, while in 1946 the kill totaled 31,669 animals.

The total kill last year was valued at $1,688,785.18 and Lester Bagley, state game and fish commissioner, explained that the department's valuation was based on a value of 30 cents a pound which represented the sale value of the animals. Cost to the hunter was much greater than that, however, he pointed out. Number of pounds of big game meat processed by the locker and cold storage plants was about 5,629,284.

The 1947 kill included 7,209 elk valued at $682,714.18; 18,752 deer, $710,466.81; 10,521 antelope, $252,504; 180 moose, $30,510; 22 mountain sheep, $782; 143 black bear, $11,797.50.

Average weight of dressed elk handled by the Wyoming plants was 185 pounds for calves to 344.3 pounds for bulls; deer from 54.2 pounds for fawns to 138.3 for bucks; antelope, 80 pounds; moose, 450 pounds for cows and 600 pounds for bulls; mountain sheep, 120 pounds; and bear, 275 pounds.

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Today this "Perfection" walk-in refrigerator is a source of added profit, a creator of new customers, and a vital and essential part of successful merchandising.

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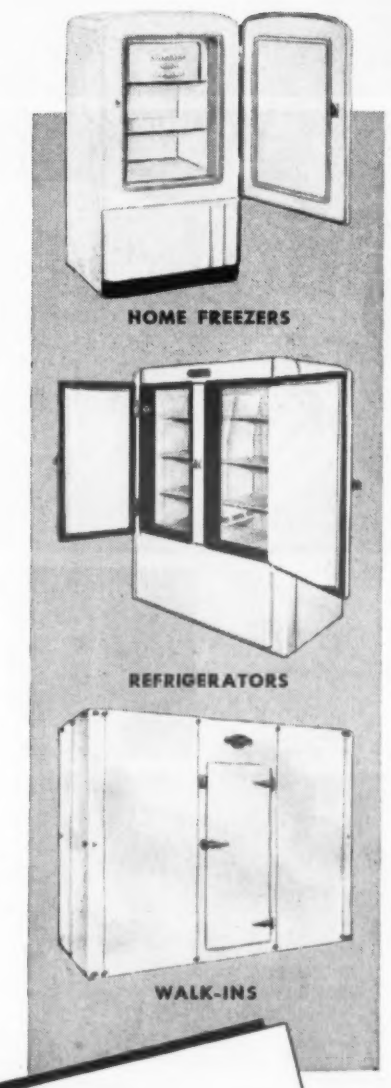
Features • Reach-In Design • All-Steel Welded Cabinet • Small Floor Space • White Dulux Finish • Extra Insulation • Automatic Control

Self-Contained Farm Freezer Model FF-25 Capacity 25 cu. ft.



Farms, homes, institutions and commercial establishments from coast to coast are buying the Wilson Reach-In line of freezers and refrigerators. Superior engineering and construction that made Wilson milk coolers famous is leading the field in more efficient and economical products for food freezing and storage. Wilson self-contained freezer models range from 6.6 cu. ft. capacity to 25 cu. ft., sectional models from 22 cu. ft. to 120 cu. ft.

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DIVISION OF WILSON CABINET CO., INC.

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Is 'Scare' Helping Sales?

Opinion Divided on Whether Threat of Meat Scarcity Boosts Lockers, Freezers

BUFFALO — Widespread reports that the Government may resume meat rationing are listed by some observers here as the reason for sales and increased use of frozen food lockers and home freezers. Many women, recalling war-time difficulties in buying under rationing, are almost frantic to take precautions against shortages.

One company that rents 650 food-storage lockers—each capable of holding about 200 pounds of foodstuffs—noted that rationing reports were followed immediately by increased use of its lockers.

"People are going out to the country and buying a few chickens to store away. They don't want to be caught short if meat rationing is ordered," an executive commented. "Many of our customers are very frank about it. They are bringing in or ordering cuts of beef, veal, and pork that they bought solely for future use."

Meat-market operators disagree as to the extent of "ration buying"

The operator of a neighborhood independent market said that few of his customers are buying for future consumption.

"Most of our customers cannot afford to buy more meat. At today's prices, they're lucky to be able to buy meat for day-to-day use."

A chain-store executive finds definite indications of "ration-buying" in most of his company's markets.

"It's a natural thing," he said. "Every time there is an indication of scarcity, people will rush to buy. Some of our customers evidently are afraid of rationing that may be ordered. But, generally, the anxiety we noticed while meat was rationed has disappeared.

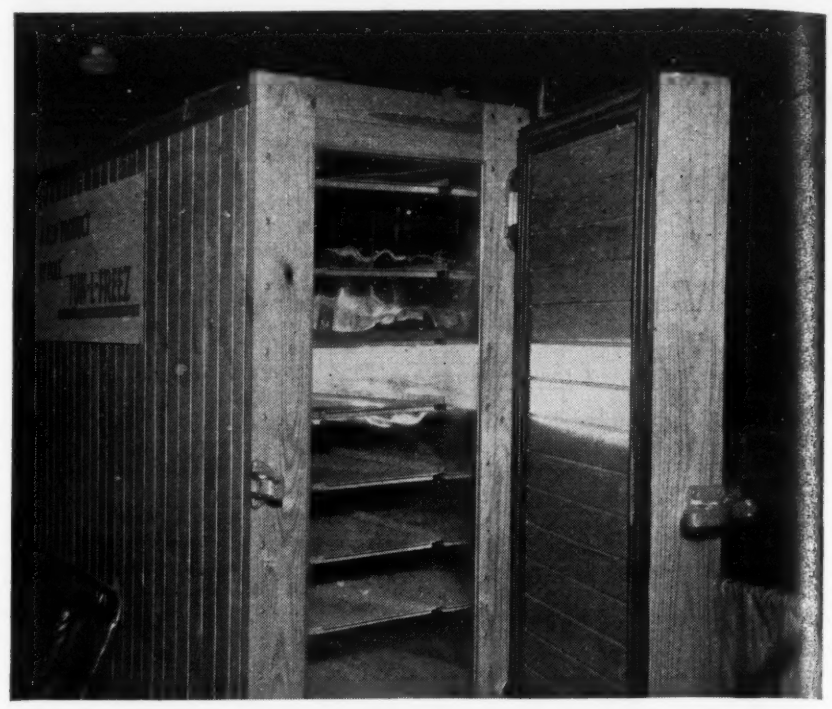
"During the war, some of our customers actually were afraid that they would not be able to get enough to eat. Today, the same customers are nervous. But their buying isn't of that type. They feel they just want to be prepared for what may come."

A distributor of home freezer units has found no indication of increased sale of those units.

"Our sales are normal," he declared. "After all, the public hasn't yet been properly educated in the use of home freezers. Our customers are people in the higher-income brackets. I imagine that most home freezers are filled. It follows logically that owners of these units have money enough to be able to buy meat in larger quantities."

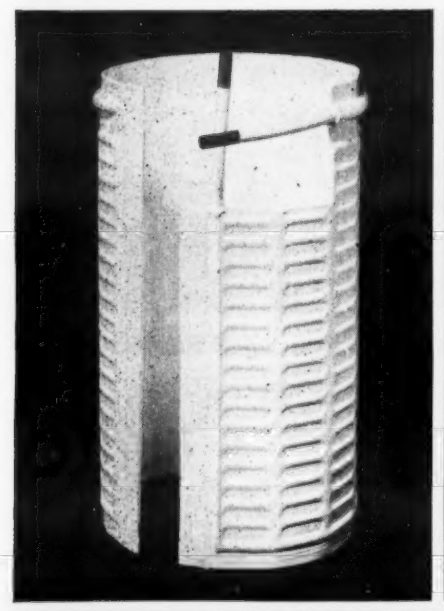
Another food-storage company reports that much of the meat stored in its lockers apparently was purchased in Canada.

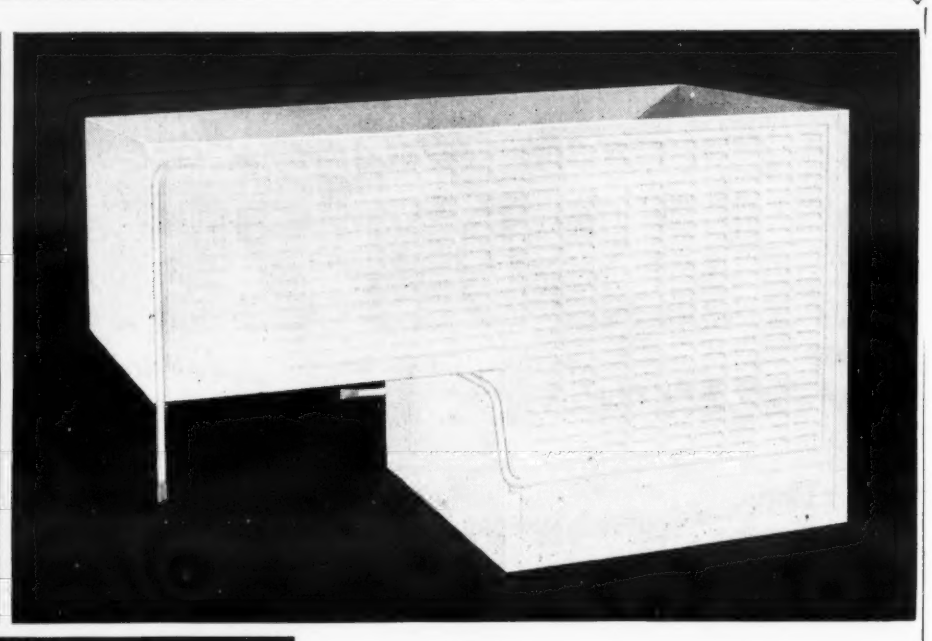
"With Canadian meat prices much lower than ours," he observed, "some housewives are stocking up in Canada and managing to put a few pounds of meat away each week.

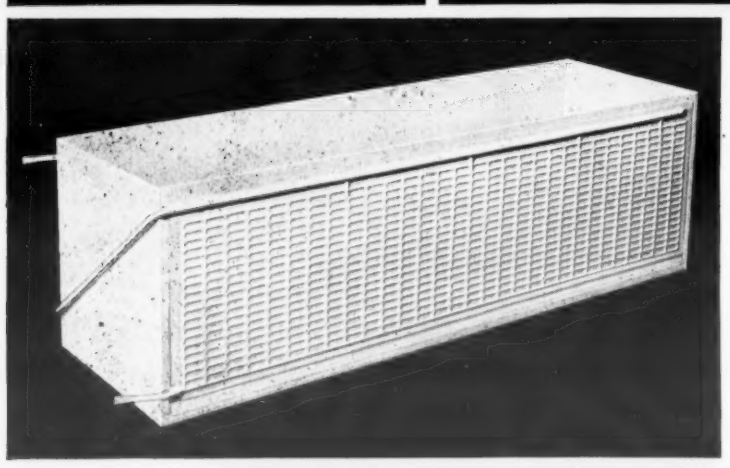


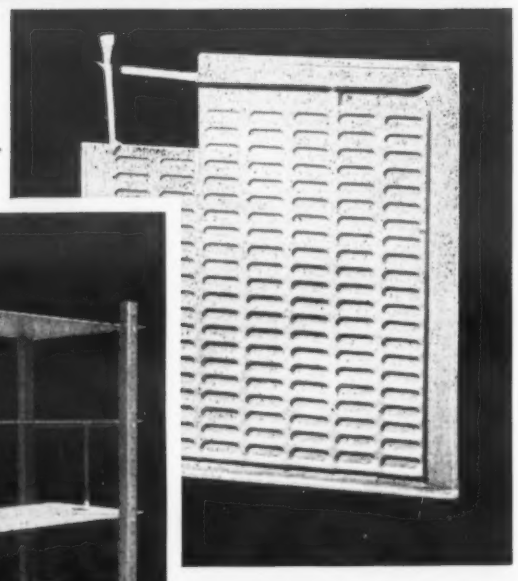
This is the new Dole "Tun-L-Freez" unit which can be used in locker plants or other frozen food processing establishments. Equipped with several shelves and blower units mounted on a door at the opposite end, this provides a production-line method of freezing foods for smaller operators. Trays of foods to be frozen are placed at one end, each tray shoving the others towards the removing end.

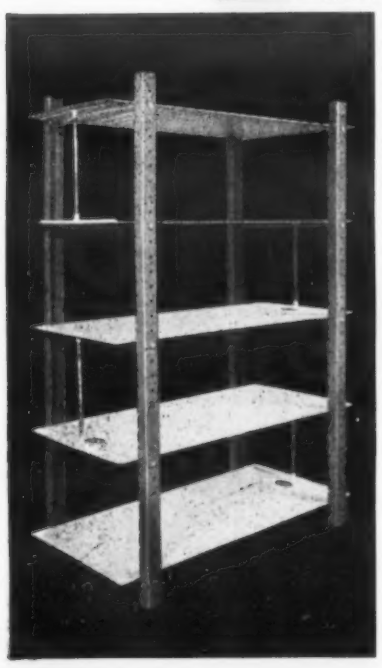
Charles E. Stevens of the M. M. Stevens Co., Hutchinson, Kan. contractor, examines the intake of the two-way unit cooler introduced by McQuay, Inc. at the All-Industry Show. Designed for either ceiling or wall mounting, the unit is applicable for reach-ins, low-ceilinged storage rooms, or back-bar installations.











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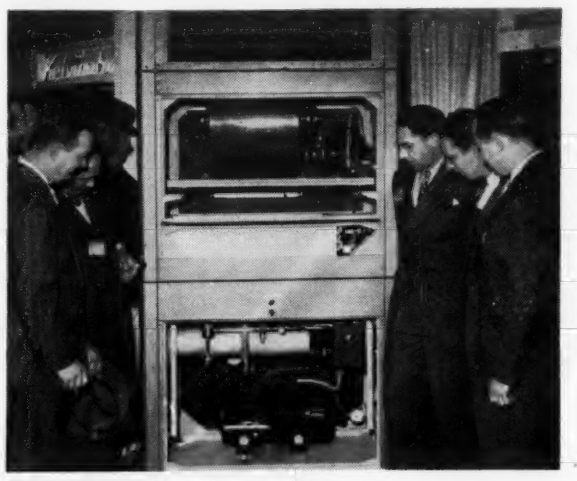
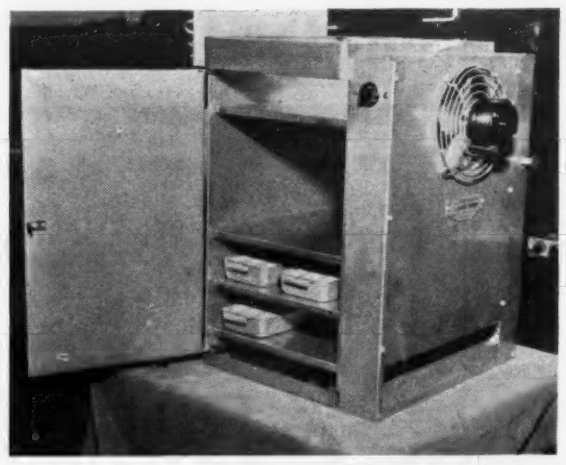
More New Items for '48 Market

H. A. Harty (left), Wolverine Tube division, points out features of Wolverine's ⅛ in. i.d. aluminum "Tru-fin" coil with nine fins per inch. Paul D. Sizer, Acme Refrigeration Co., Toledo, and Tracy Riches, Riches Refrigeration, Toledo, are the interested visitors.

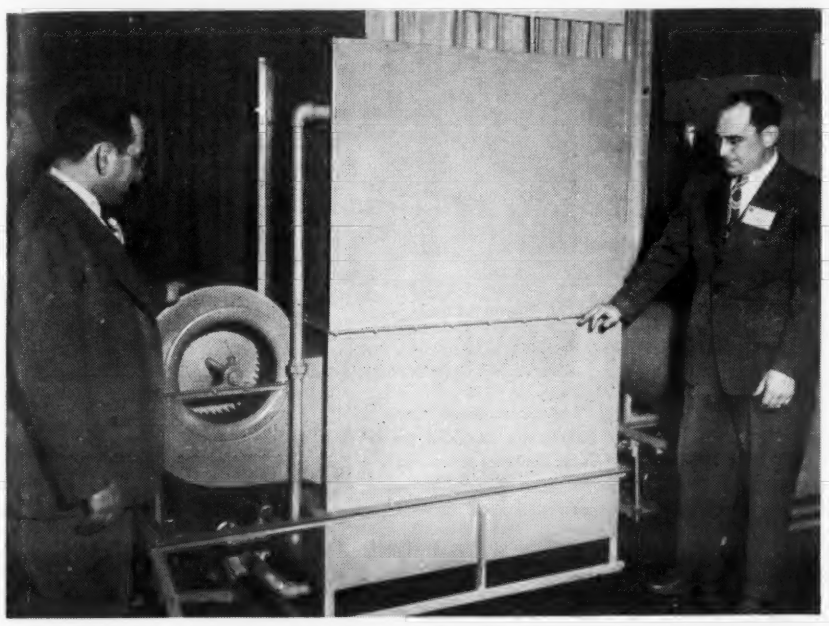


(Above) Inspecting the new Ameri-therm packaged 5-ton air conditioner, featuring a new hermetically sealed compressor, are (left to right): Russ Keller, sales representative for Ameri-therm; Svend Sogaard, James & Roach, Detroit; Emanuel Feinberg, Ameri-therm president; Eddy J. Miller and John J. Kramer, sales representatives.



This combination "Filterpure" unit introduced by Betz Corp. serves not only as a blower cooling coil, but in addition provides ice cube making facilities and storage space for frozen foods.

(Right) This conference in the Brewer-Titchener Corp. booth partially hides the new BTC 12-cu. ft. frozen food display case. Left to right are: S. Sumberg, American Specialty Co., Rochester, N. Y.; C. H. Beane, Brewer-Titchener chief engineer; F. A. Ellis, BTC plant manager; and J. P. Florance, assistant to the manager of the BTC refrigeration division.



NAT Corp. is introducing a new 7½-ton evaporative condenser and posing with it here are Nathan Baraban (left), president of the company, and J. Gumowitz, sales representative for the firm.

Featuring aluminum fins spaced automatically 12 to 1 inch on copper tubes, this evaporator has been designed by McCord Corp. for self-contained air conditioning units. Beneath it is a new shell-and-tube spiral-fin water-tube condenser. Examining the products are H. J. Glaeser (left) and Dan Mull of McCord.

Stangard-Dickerson introduced a new home and farm freezer model in 10-cu. ft. size. This two-temperature cabinet has a sharp-freeze compartment with four walls and floor made of refrigerated plates. Dividers in the holding compartment are also refrigerated. A. M. Rohr (left), Stangard district manager in the Chicago division, describes features of the cabinet to I. L. Halfied of the Peerless Mfg. Co., Lombard, Ill.

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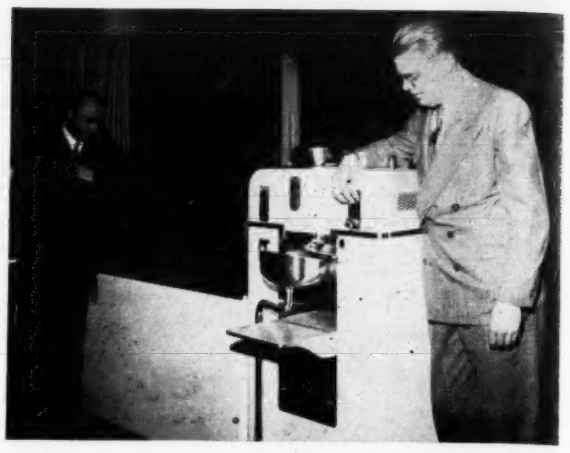
More of the Many New Items for the Field Introduced at All-Industry Show

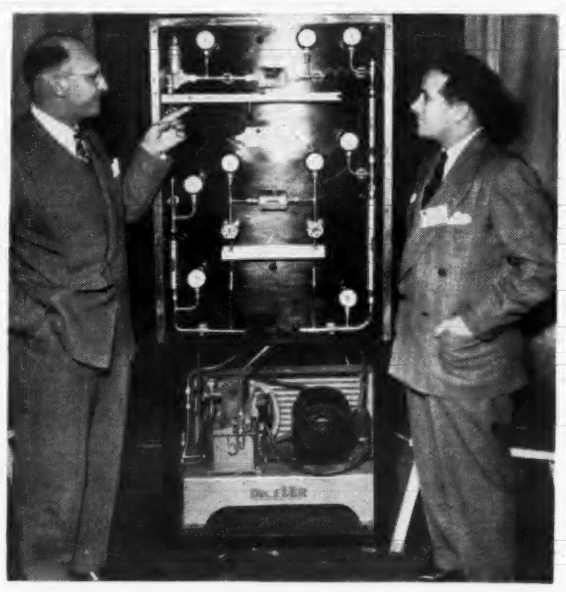
One of the featured products in the 1948 line being produced by Weber Showcase & Fixture Co. is the "Super Servemaster" 10-ft. vegetable and dairy case. John D. Haidinger points out that, designed for big volume markets, it has a 48-in. display rack and new coil baffle and drip pan design for dripless operation. Weber also showed its "endless" clear vision meat case line, and announced that new low temperature cases are also being made available.

In earnest discussion over the Monterey 7-ft. double-duty display case in the background are (from left to right) Lou A. Stark, midwest district manager for the Ward Refrigerator & Mfg. Co.; W. L. Frasik, Refrigeration Service, Flint, Mich.; and Austin R. Boyer, B & B Specialties, Flint. Ward's appearance at the show marked the first national showing of the Monterey line. Also shown by Ward was a 16½-cu. ft. refrigerator with 1½-cu. ft. of frozen food storage space, and a blower-type evaporator to provide proper temperatures and humidities for the rest of the cabinet interior.



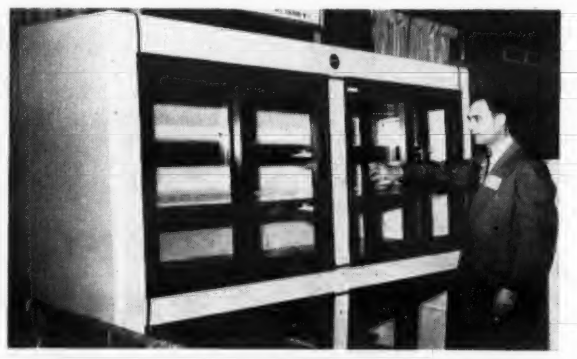
Inspecting the new Tuthill vertical ice cream freezer and hardening cabinet now being distributed nationally by the Coleman Equipment Co., Inc. are L. C. Anderson, City & Suburban Refrigeration, Chicago (left); and J. A. Coleman, president of the Coleman firm. The freezer head is available in 2½ and 5-gal. sizes while the hardening cabinet is made in 40 and 60-gal. sizes with 20-gal. mix compartment.

The brightly colored Koroseal air hoses that drew attention to the Hedeman Products, Inc. display are not done justice in this picture. L. J. Amendala of Hedeman company points out that only the air hoses to beer kegs are colored—the beer hoses are of a colorless plastic that is non-toxic.

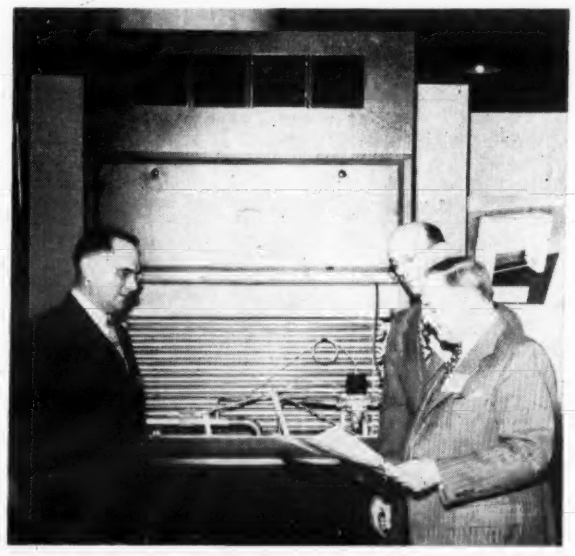


K. A. Newcum (left), president of Remco, Inc., points to a small drier-filter mounted in the low side of a refrigeration system to William R. Rinelli, director of customer relations for Ansul Chemical Co. This small drier-filter, along with a 7½ to 15-hp. capacity drier-filter also shown at the booth, extends the limits of the company's "Cross-Flo" line.

Ben Katz, sales manager for Franklin Refrigeration Co., with the new Franklin model D-6 self-contained self-service dairy products reach-in case introduced at the Show. The case has a 42-cu. ft. capacity.



Joseph Eventoff of the Evans Mfg. Corp. draws back one of the sliding doors on the new Evans self-service, wall-type dairy display case exhibited by his firm. This model, one of six, is the 8 DSS and has 38 sq. ft. of shelf area and 40-cu. ft. capacity.



Glen A. Brewer (left) and George F. Fake, both of Finch, Pruyn & Co., Glens Falls, N. Y., check written specifications against actual product as L. E. Smith of Frigidaire points out some of the features on the new 5-ton self-contained packaged air conditioner. This unit, model SC501, is designed particularly for stores, restaurants, and business establishments.

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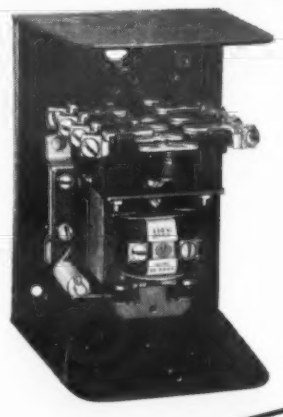

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Refrigeration Problems

And Their Solution

By P. B. Reed

For Service and Installation Engineers

Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Cleaning Parts Before Repairing

When a compressor, motor, condenser, evaporator, expansion valve, control, or other part comes into the shop for rebuilding or minor repair, it is usually oily, dirty, wet, or rusty.

If it is put on the repair bench in the same condition as received it messes up the bench, gets the tools dirty and the repairman's hands and clothing dirty and slippery from grease. He is in danger of injuring himself from slipping tools, and when the compressor, for example, is opened the clean inner parts get fouled with the outside dirt and grease.

Well organized shops have made it a practice that all old compressors or other material that come in for rework must be first cleaned before any work is done on them.

There are a number of methods and materials used in cleaning the various pieces of equipment; some suitable for some types of equipment and materials and unsuitable for others.

It is the purpose of this series of articles to investigate what cleaning materials are available, how they are used, for what purposes they are best suited and the type of equipment which they are best adapted to clean.

Since the processes and materials overlap somewhat, the series will also touch on rust removal, lime softening and removal (as in water-cooled condensers), rust preventatives and metal treatment before painting.

FIRST: MAKE A RECORD

The first thing to do, when the part is brought into the repair shop, is to "write it up"—to make a record of the name and address of the customer from whose installation it came, the name of the service engineer who brought it in, date, service work, order number covering the service call, and what is to be done to it; whether it is to be returned to the customer and put back on his equipment after it is repaired, or whether it has already been replaced and is, therefore, to be repaired and put into reworked stock.

There is nothing more annoying, that loses more time, and, therefore, costs money, than to have some materials on hand that need to be repaired, and not know whom they belong to, what is wrong with them, who brought them in and when, and what is supposed to be done with them.

TAG SECURELY

Each piece of equipment must be tagged with an identifying number. What this number is will depend on the record system used in the shop. It may be the service work order number, the shop job order number, a number identifying the customer or a purely arbitrary number that is recorded and can be traced to and identified with the service work order number, the customer of the shop job order number.

Just what this tag number is tied in with, does not matter so much as that the tag be *tied on or wired on* the part to be repaired and that it *stay on* and that the *number can be read* and identified even after the part has gone through cleaning, repair, and repainting.

This means that the tag must be of metal, preferably brass and that the number be stamped heavily into or stenciled through the metal.

This favors a small arbitrary number that can tied in, by a separate list, with the service work order, etc. as suggested above.

A CLEANING DEPARTMENT

How much equipment is required for the cleaning process will depend of course on the size of the shop and how much work is to be cleaned. Also it will depend upon what type of cleaning is used and whether paint stripping or other operations are to be employed along with simple cleaning.

Regardless, a part of the shop should be permanently set aside for the cleaning operation. It is too time-consuming and costly to have to set up a tank and pour the cleaning solvent into it every time it is needed, except perhaps in the one man, part-time shop.

Shops that employ one or two full-time shop men or more, should have a "cleaning department," set up and ready to use at any time during the work day.

Preferably the cleaning booth should have a concrete floor, and if more convenient, it can be laid on over the regular wood floor. The walls should be concreted, covered with tile or rubberized material, similar to those in a shower bath, so that compressors, coils, etc. can be hosed down and rinsed.

Moreover it should be located near the bins in which the *material to be reworked,* is stored. From these bins it can be taken first through the cleaning process, disassembly and repair, run-in, testing, repainting, and finally to the bins in which the *reworked material* is kept, prior to taking it back to the customer, or to the stockroom.

THE CLEANING EQUIPMENT

The type, size, and cost of the cleaning equipment depend not only on the size of the shop and the amount of work to go through the cleaning process, but also on the size of the compressors, coils, motors and other parts to be cleaned. It will also depend on whether cleaning only is provided or whether paint stripping, rust proofing, lime removal, etc. are to be done also.

The size of the cleaning equipment will range all the way from the small covered can of a cold solution in which parts are hand-washed, through tanks of heated solutions with which steam, flowing hot water and compressed air are available, up to factory-made self-contained degreasing machines which are self-distilling and which, therefore, recover and reclean the cleaning solvent.

Some of the cleaning liquids may be used cold; others must be used hot in order to obtain good results and others may be used either hot or cold.

TYPE AND CHARACTERISTICS OF CLEANING LIQUIDS

Some liquids are entirely safe from a fire hazard stand-point, others moderately so, and still others are highly flammable.

Some cleaning liquids give off toxic fumes and are rather dangerous to work around. Some of these, in fact, are cumulative; that is, they keep building up in the human system, perhaps without noticeable effects, until finally liver, lung, or kidney trouble results.

Some of these liquids can be used safely with any of the common metals; others readily attack the white metals—zinc, aluminum, galvanize, die-castings—but can be used with iron, steel, brass, or copper materials.

Some cleaning materials are rather expensive—up to around $1.50 per gallon; others can be obtained or prepared for as low as seven or eight cents per gallon.

Some are bought in liquid form, ready to use as is; some are bought in powder or concentrated liquid form and must be mixed with water or other liquid.

Next week we will study these various materials; how they are used, for what purposes they are particularly adapted, what types of containers or equipment are necessary to use with them, whether or not they are flammable or toxic and how much they, and the equipment to use with them cost.

(To Be Continued)

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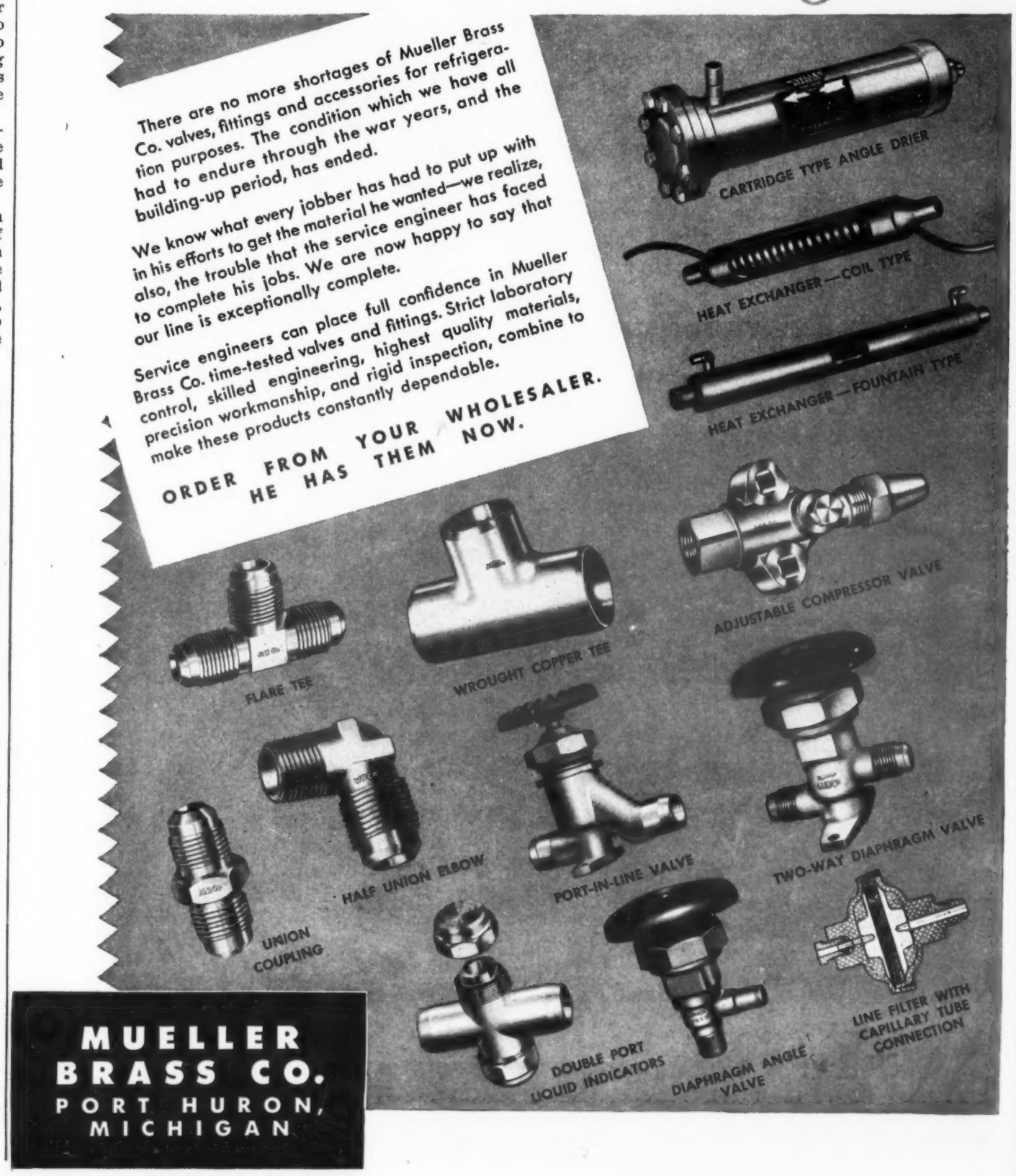
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'Information Please'

At every large meeting conducted by the Refrigeration Service Engineers Society, it is customary to hold an "Information Please" session before the regular meeting begins. Questions asked by the audience are answered by a "board of experts," who are aided frequently by comments from the floor. The following is the second and concluding section covering some of the most interesting questions-and-answers which came out at the recent RSES annual meeting in Cleveland.

Question: In one of our big chain outfits I've noticed 50 ft. of open display cases which are operated off a 1½-hp. unit. There is a 1⅛-in. suction line which runs up over the door. It goes into the compressor through two ⅝-in. tees. The compressor is slow speed. There is no oil trap. What's going to become of this oil? There is no velocity to return the oil because the compressor operates at such low speed.

Answer: The speed of the compressor is no indication of the velocity of the gas. The 1⅛-in. suction line for 50 ft. of cases would cause the suction velocity to be higher than if the line were larger. And as for the line running up over the door, you can do a lot with modern refrigerants which you couldn't do with sulphur dioxide.

Question: Several years ago an article appeared in a magazine which gave the recommended velocities for various suction line sizes and refrigerants. But is there any published data to give rate of pressure drop to assure proper oil return?

Answer: We don't know of any tables which give the correct velocities with certain pressure drops. However, ACRMA and ASRE do have some data on the subject.

Question: With so many freezers now being put out on farms, they are often located in back sheds. In winter the surrounding air temperature gets quite low. I wonder how long these units will operate and still provide proper oil return. Also, do you think these low temperatures will do any harm to the machine?

Answer: If it's just a question of keeping the oil warm, electric strip heaters could be used. However, it is very, very bad practice to put the condensing unit where the temperature falls below 40° because the oil will absorb refrigerants. A pressure drop of 5 to 6 lbs. causes the refrigerant to evaporate out and the oil to move out of the compressor, causing knocking.

At 40° F. the liquid in the compressor is half oil and half refrigerant.

It was also suggested from the floor that two heating elements from flat irons could be taken and placed under the crankcase. They should be wired in ahead of the motor control and one must remember to turn them off.

Question: I recently saw a large installation which had a single large machine supplying 48 coils. There was a single liquid line and a single suction line, but there was a dryer ahead of each of the 48 expansion valves on the coils. Why not use a single dryer?

Apparently the designer thought that a dryer ahead of each expansion valve would give better protection than a single dryer on the main suction or liquid lines. Incidentally, this job accidentally had a rupture of the water-cooled condenser, but all the dryers prevented any moisture trouble.

Answer: Maybe there was a good dryer salesman in on that job. However, it should be noted that the total dessicant contained in those 48 dryers would require a single dryer about half the size of a standard refrigerant cylinder.

Question: How can you stop the squeal of the seal on a Norge Rollator?

Answer: Although several suggestions were made, the Norge man present suggested that it simply be replaced.

Question: In what position should a dryer be installed, especially in a low temperature cabinet? And should it be vertical or horizontal and should it feed from top or bottom?

Answer: As the temperature of refrigerant is reduced, it has less capacity to hold moisture in suspension. "Freon" as supplied to manufacturers in 2,000-lb. drums contains 6 to 8 parts per million of moisture. At -20° F. it can only hold 1 to 1.5 parts per million of moisture. It's best to place the dryer in the coldest location just before the expansion valve in a position where the dessicant has the greatest affinity for moisture.

The best position is where the refrigerant is in contact with the dryer for the greatest possible length of time. In large mesh dryers with larger size particles of dessicant you do not get as good drying by having the refrigerant come in at the top. With small particles and small mesh the dryer works just as well whether the refrigerant flows through from the top or the bottom.

Some authorities, however, favor putting the dryer after the expansion valve.

Question: Is there any reaction between zinc-coated steels and "Freon"?

Answer: As far as we know there has never been any chemical reaction between "Freon" and zinc except in the presence of excessive moisture. Zinc has also had a good corrosive record with methyl chloride. Zinc and aluminum compounds are similar to one another, but zinc does not have the same combustible effects as does aluminum.

Question: What about the reaction between ammonia and aluminum?

Answer: A member of the audience reported that he had used aluminum tubing in ammonia truck plate installations for several years and had noted no chemical reaction or pitting of the tube. You must watch for acid eating in from the outside under excessive moisture conditions. To avoid this aluminum tubes should be sheathed when they pass through wood.

He recommended the use of aluminum tubing with a wall thickness of .065 in. rather than the standard .035 in. tubing for these truck plate applications.

Question: Has iodine ever been used successfully to free a stuck-up sulphur dioxide compressor?

Answer: We see no reason why iodine should free a compressor. We'd rather suggest the use of kerosene or Carrene. In using any solutions in refrigeration systems, you must be careful about effects other than those desired which such solutions might have on the machine or system.

Question: Are there any problems involved in changing from sulphur dioxide to methyl chloride or "Freon," especially in low side float systems?

Answer: Chemically any machine suitable for sulphur is suitable for methyl or "Freon," but you must be sure that the machine is dry and thoroughly clean. While a mixture of sulphur and either of these refrigerants would not do any harm, these other two refrigerants might loosen particles which were hard in the sulphur refrigerant, and these particles might cause trouble.

Remember that in changing refrigerants the displacements of the machine will be different. In changing from methyl chloride to "Freon-12" the same displacement might overload the motor. The low side float also needs to be recalibrated.

Also, when changing from sulphur to either methyl or "Freon," you must remember that oil won't mix with sulphur while it will with the other two, and this may necessitate some changes in the oiling arrangement of the original sulphur machine.

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KOLD-HOLD TRUCK PLATES are lightweight . . . compact . . . efficient. Every square inch of plate surface is clear for fast cooling. They afford complete protection for perishables by holding safe temperatures both on the road and for overnight storage. Simple and fully streamlined, they contain no moving parts . . . are easily maintained.

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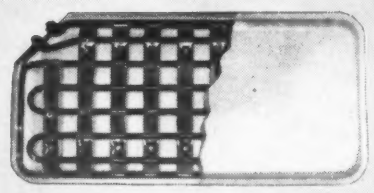
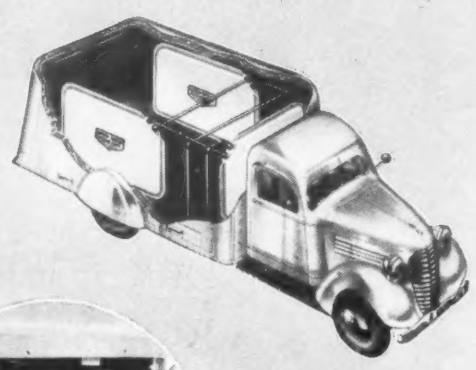
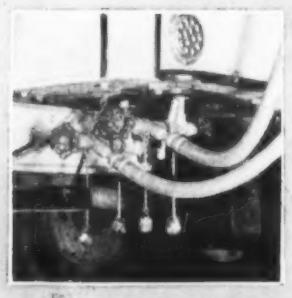
9. Take up very little space, leaving greater payload area.



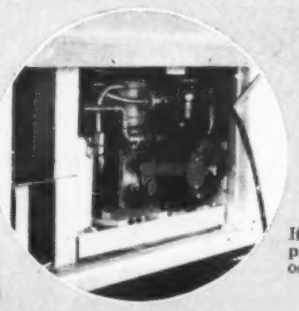
Cut-away view of KOLD-HOLD plate, showing seamless, no-leak steel coil.



Cut-away view of truck, showing typical installation. Note large payload space.



Make-and-break valve, which connects to your ammonia lines for overnight charging.



If necessary, a small compressor can be mounted on the truck.

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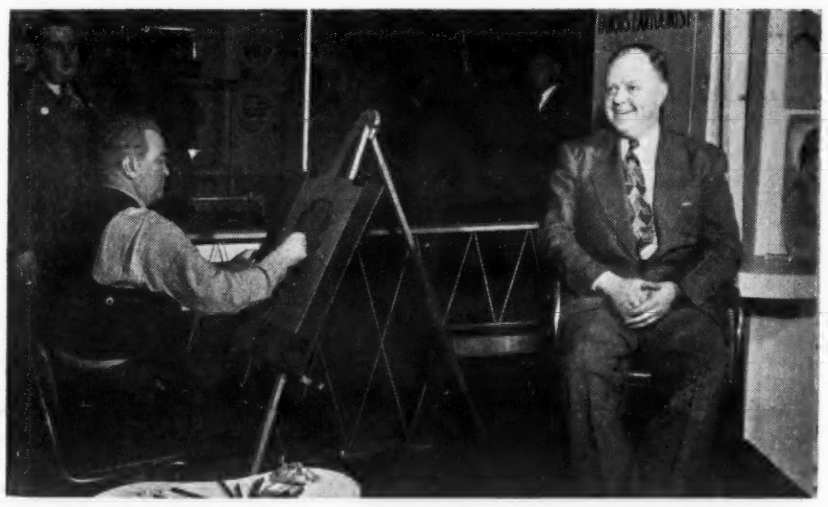
Unusual Exhibit Ideas Get Attention

A "checker-board" background drew attention to the Mueller Brass Co. exhibit. P. O. Domke (right) describes some new items to Percy G. Hansen of Akron (left) and J. M. Manley of Montgomery, Ala. The four new products on the ledge are a water-cooling coil for carbonated and plain water, a two-temperature valve, a midget purger to purge air and non-condensing gas out of systems, and a water-cooling coil.

Detroit Lubricator Co. used its emblem effectively, even making table-tops out of it, and used large blowups to diagram operation of its valves and controls. Group at right includes Paul Boucher and Franklin Y. Carter of Detroit, and Cliff Leegard of G-E.



Neill Mitchell of Lehigh Mfg. Co. sits for a sketch by Cartoonist Pete Boyle, whose work stopped show-goers at the Virginia Smelting Co. booth.

Heat Pump--

(Concluded from Page 1, Column 2)

equipment are competing aggressively for increased allotments.

They say they can sell 50% more equipment than they've been allotted, Wilson asserted.

Startling advances in earnings made possible in both commercial and industrial establishments as a result of using commercial cooling methods have now made refrigeration devices a necessity rather than a convenience, he added.

The show itself, however, presented little that was startlingly new in the field of air conditioning, with one exception—the 5-ton Miracula self-contained heat pump for year-round air conditioning and heating shown by General Engineering & Mfg. Co. of St. Louis.

Previously introduced at the All-Industry Refrigeration Show in Cleveland just the preceding week, this unit proved to be one of the biggest "crowd-stoppers" at the New York show, especially at the regular intervals when demonstrations were staged.

The fact that there was little new at the show should not be taken as criticism, commented one well-known figure in the air conditioning industry.

"It's too much to expect manufacturers to bring out something startling every year for the show," he said.

Another show, incidentally, is scheduled for next year, to be held Jan. 24 through 28 in the International Amphitheater in Chicago concurrently with the next annual meeting of the A.S.H.V.E. group.

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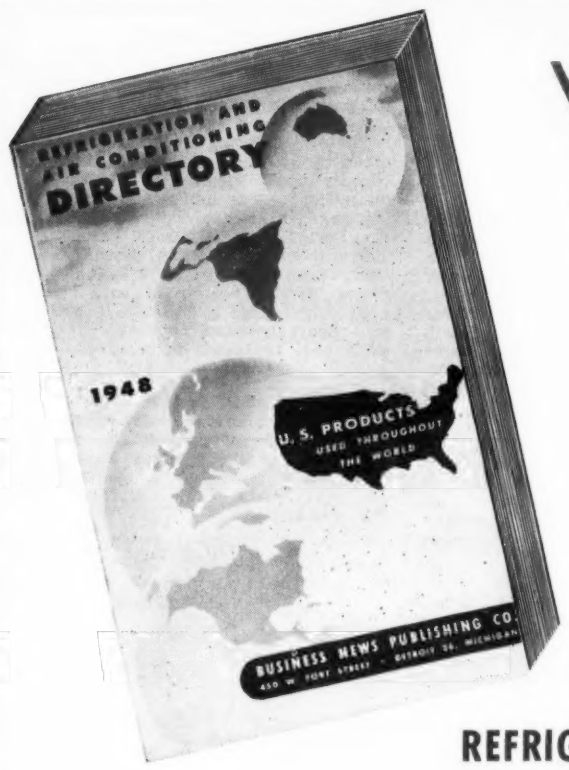

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The Directory lists each refrigeration and air conditioning product, followed by the names and locations of all the companies producing the article. All manufacturers are also listed alphabetically, together with their company address, and there is a separate section devoted to Trade Names. Other sections list manufacturers, refrigeration parts wholesalers, schools and associations geographically. Manufacturer's listings include executive personnel, summary of their products, and phone numbers. The Directory is book-size, 6" x 10", durable and completely indexed for your convenience. A quick and accurate reference book which will save you many hours in your search for names, products, addresses, and phone numbers. 324 pages of listings and informative advertising, in nine well organized sections, makes this 1948 Directory a buyer's guide you can use profitably. *Order your copy today.*

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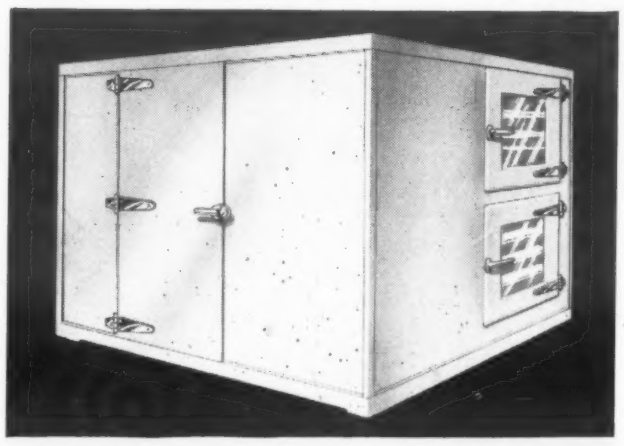

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UNIT COOLERS
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AIR CONDITIONING
Refrigeration Appliances, Inc.
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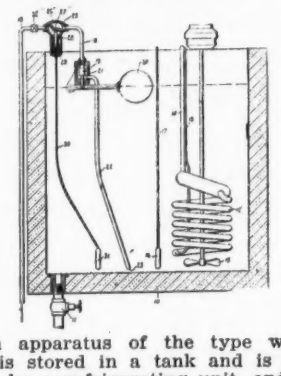
PATENTS

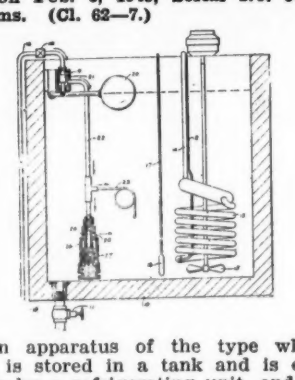
Week of December 16

2,432,546. FLUID COOLING APPARATUS WITH CONTROLS THEREFOR. Elo Carl Tanner, Springfield, Mass., assignor to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application June 28, 1947, Serial No. 757,696. 2 Claims. (Cl. 62-7.)



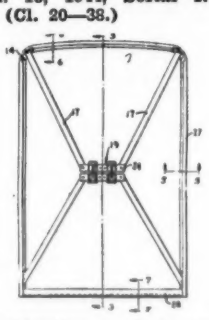
1. In apparatus of the type wherein liquid is stored in a tank and is cooled therein by a refrigerating unit, and from which tank the cooled liquid is periodically withdrawn, and in which the liquid is supplied to the tank from a source under pressure, the combination of means responsive to the liquid level in the tank for controlling the admission of liquid thereto, and means in series with said first means for also controlling the admission of the liquid to the tank in response to the temperature of liquid in the tank.

2,432,547. TEMPERATURE AND LIQUID LEVEL CONTROL FOR REFRIGERATION APPARATUS. Robert H. Tull, Springfield, and Evert S. Wegman, East Longmeadow, Mass., assignors to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Feb. 6, 1945, Serial No. 576,484. 3 Claims. (Cl. 62—7.)



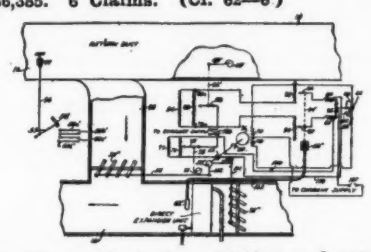
1. In apparatus of the type wherein liquid is stored in a tank and is cooled therein by a refrigerating unit, and from which tank the cooled liquid is periodically withdrawn, and in which the liquid is supplied to the tank from a source under pressure and in which flow of liquid into the tank is controlled by means responsive to the liquid level in the tank, the combination with said liquid level control means, of means in series therewith and responsive to the temperature of liquid within the tank for also controlling admission of liquid to the tank, and means in parallel with the temperature-responsive means for by-passing a predetermined volume of liquid to the tank regardless of the temperature-responsive means.

2,432,563. REFRIGERATOR CABINET. Earl D. Drake, Greenville, Mich., assignor to Gibson Refrigerator Co., Greenville, Mich., a corporation of Michigan. Application Jan. 13, 1944, Serial No. 518,052. 6 Claims. (Cl. 20—38.)



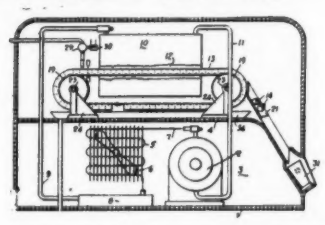
1. In combination, a door comprising a generally rectangular concavo-convex door pan composed of relatively flexible material and adapted to be supported from one lateral edge thereof, and means for stiffening said door pan in the plane thereof while permitting flexing in a direction normal to the plane thereof comprising a plurality of separate tie members connected at their ends remote from each other to said door pan at widely spaced points about the perimeter thereof.

2,432,487. AIR CONDITIONING. Melvin Atkinson Ramsey, Buenos Aires, Argentina. Application May 10, 1943, Serial No. 486,385. 6 Claims. (Cl. 62—6)



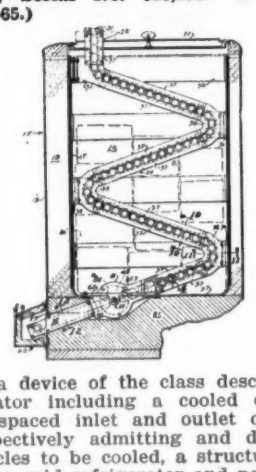
1. The method of ventilating and conditioning a room, which includes withdrawing air from the room, conditioning some of said air by causing it to pass over the surface of a direct expansion refrigeration unit, adding to the conditioned air by-passed withdrawn air having a condition different therefrom, adjusting within variable limits the proportion of by-passed withdrawn air to said conditioned air responsive to a function of the surface temperature of said refrigeration unit, varying said variable limits responsive to predetermined conditions, and delivering the mixture of by-passed withdrawn air and conditioned air to said room in order to vary the conditions in said room.

2,432,597. ICE TRAY. Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Co. of Ohio, Dayton, Ohio, a corporation of Ohio. Application March 10, 1944, Serial No. 525,823. 3 Claims. (Cl. 62—105.)



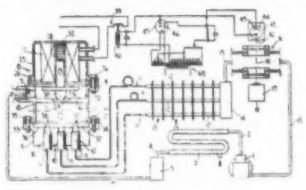
1. In combination, a cooling compartment having a freezing means therein, an elastic deformable pocketed belt adapted to pass through said cooling compartment and said freezing means, means for actuating said belt and for deforming it to cause it to expand and discharge frozen products therein, chute means for receiving said frozen products and discharging them outside of said cooling compartment, means for actuating said actuating means and intermittently driving said actuting means for said belt comprising an electrical circuit associated with the exit of said chute, means associated therewith whereby when a container is placed at the bottom of said chute said actuating means for said belt will be put into operation and retained in operation until said container is removed.

2,432,749. APPARATUS FOR COOLING AND DISPENSING ARTICLES. Fred Glassford, Royal Oak, Mich., assignor to Chrysler Corp., Highland Park, Mich., a corporation of Delaware. Application Jan. 14, 1944, Serial No. 518,275. 4 Claims. (Cl. 34—65.)



4. In a device of the class described, a refrigerator including a cooled chamber having spaced inlet and outlet openings for respectively admitting and discharging articles to be cooled, a structure supported on said refrigerator and positioned at said inlet opening providing a heated chamber exteriorly of said cooling chamber for decreasing the amount of moisture admitted to said cooling chamber as an incident to the admission into the latter of the articles to be cooled, a pair of trackways extending through said heated chamber and said inlet opening into said cooling chamber for guiding articles to be cooled through said heated chamber and between said inlet and outlet openings.

2,432,859. REFRIGERANT FLOW CONTROLLING MEANS. Franklyn Y. Carter, Detroit, Mich., assignor to Detroit Lubricator Co., Detroit, Mich., a corporation of Michigan. Application April 10, 1944, Serial No. 530,263. 8 Claims. (Cl. 62—8.)



1. In a refrigerating apparatus a multi-tube evaporator having a suction header, a tubular vertical housing member, a horizontal partition dividing said housing member internally into an upper inlet chamber and a lower liquid feeding chamber, said partition having a valve port, a casing on the upper end of said housing member, an electro-magnetic coil in said casing, a valve member in said inlet chamber and movable to close and to open said port and having an armature cooperable with said coil, a bottom wall closing the bottom end of said feeding chamber and having a plurality of passageways there-through leading from said feeding chamber.

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3'6" by 7'2" YORK track doors, 4" insulation, left hand swing @ $80.00 ea. 3'6" by 7'2" York double batten, automatic close, track doors, 1½" cork board insulation, @ $75.00 ea. All new in original factory crates. THE BIMEL COMPANY, 2600 Colerain Avenue, Cincinnati 14, Ohio.

SEALED UNITS rebuilt—prompt service on Coldspot (sealed and semi-sealed) Westinghouse, Crosley, Philco, Tecumseh, Mayflower, Kelvinator & etc. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Michigan.

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SEALED CROSLEY TERMINALS. Installed from the outside in a few minutes without opening the compressor. Corrects leaky terminals on all Crosley "F-12" units. Set of three $5.25 (Part No. 1020) Installation tool 20¢. Immediate delivery Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

FRACTIONAL H. P. motors: 9 watt—$4.05; 1/150 HP.—$3.88; 1/100 HP.—$4.45; 1/40 HP.—$10.95; 1/20 HP.—$10.96; 1/30 HP.—$10.95. SIMPLEX MFG. CO., 1135 3rd Street, Oakland, California.

ELECTRIC MOTORS: ¼ HP.—$17.00; 1 HP., 220 volt—$42.00; 1½ HP.—$60.00. SIMPLEX MFG. CO., 1135 3rd Street, Oakland, California.

ZINC PLATED Dole plates in original cartons, following sizes: 22 x 36—$10.00 ea.; 22 x 48—$12.00 ea.; 22 x 72—$17.00 ea.; 22 x 60—$14.00 ea.; 22 x 48—$22.00 ea.; 22 x 108—$25.00 ea.; 12 x 72—$7.00 ea.; 12 x 108—$13.00 ea. SIMPLEX MFG. CO., 1135 3rd Street, Oakland, California.

3 HP. CARRIERS $310; 5 HP. Mills $395; 7½ HP. Copeland $550; 50 HP. Schnacke less motor $1195. The following less motors ¼ HP. Copelands $39; ⅓ HP. Universal $49; ½ HP. Crew $49; 5 HP. McQuay & Typhoon weathermakers $395; ¾ and 1 HP. Amco $175 and $195. 15 HP. Larkin evaporative condenser $795. All new crated. BOX 2689 Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

LOCKER PLANTS East side Detroit, Michigan. 622 unit locker all rented, new building 40 x 90 also 588 unit locker all rented, long lease at cheap rental on building. These are in new neighborhoods. Lots of possibilities, you can buy one or both. SINE REALTY COMPANY, 12274 Gratiot, Pingree 5600.

MIAMI, FLORIDA—one of leading refrigeration, air conditioning, and appliance sales and service establishments—in same location ten years. Over $150.000.00 yearly sales. Business with profitable past and unlimited future. Netted over $20,000.00 past year. Located in fastest growing city in U.S.A.—Miami. Inquiries confidential. BOX 2565, Air Conditioning & Refrigeration News.

FOR SALE: Refrigeration and store fixture business, established for thirty years in Southwestern New York and Northwestern Pennsylvania. Net earnings over $20.000.00 in 1947. Valuable franchises. Reason retiring from business. BOX 2655 Air Conditioning & Refrigeration News.

FOR SALE: Fastest growing refrigeration and air conditioning business in South Texas. Franchise for nationally known old lines of refrigeration equipment, air conditioning and store fixtures. Reason for sale: Poor health. Write BOX 2681 Air Conditioning & Refrigeration News.

FOR SALE: Refrigeration service business established in same town 12 years. Inventory sacrifice for quick sale. Building rent $50 per month. Town 30 mile radius of Detroit. Reason for selling other business interests. BOX 2686 Air Conditioning & Refrigeration News.

FOR SALE: Outstanding appliance and commercial refrigeration business established over 18 years in rich Ohio farming country. Over $350.000 business in 1947. Best known lines, ideal sales and service organization. Large store and warehouse with best location in city. Live inventory at invoice price plus reasonable per cent. Owner wishes to retire. Excellent opportunity at a bargain for right person or company. Please state qualifications to purchase. Inquiries confidential. BOX 2687 Air Conditioning & Refrigeration News.

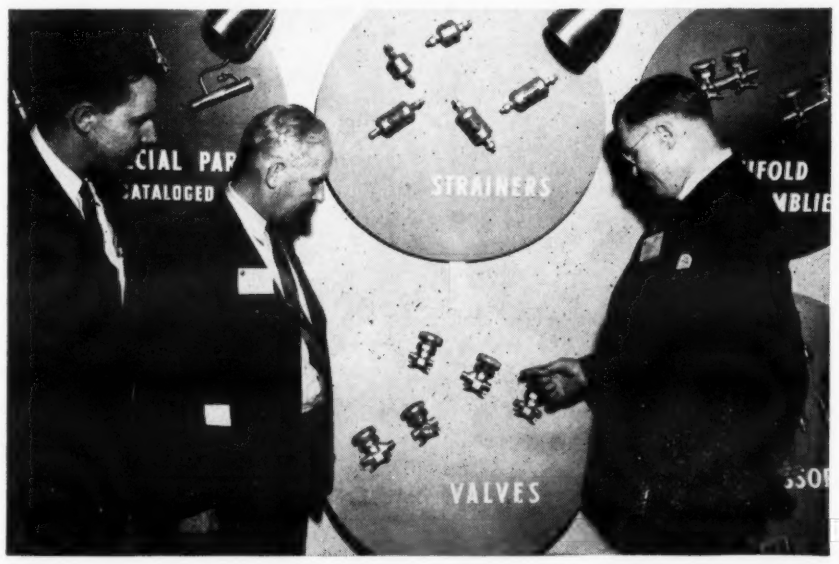
MISCELLANEOUS

CHROME PLATING and refinishing of refrigerator trays and hardware. All metal parts made "just like new." Quick service; reasonable prices. Ask for quotations and literature. MASTER SILVERPLATERS, 2031 Caniff Avenue, Dept. 29, Detroit 12, Michigan.

They Drew Attention at Industry Show

Grouped around the new Bally supermarket top display case are Leon Prince, sales manager for Bally Case & Cooler Co.; Hugo and Erwin Marx, Marx Store Fixtures, Chicago; and H. E. Snook, Snook Bros., Inc., Charlotte, N. C. The Bally case is of endless construction design and features "Illumishelf" lighting—that is, fluorescent lamps mounted inside the case at the bottom of the display glass filters.

Mills Industries showed its line of refrigeration condensing units and samples of its distinctive new packaging materials in a "wheels-within-wheels" revolving setup. In the picture are Carl L. Picker and Warren Puhr of the firm.



E. A. Koth and William E. Michener, both of Vilter Mfg. Co., learn about Weatherhead's new valve models from Roy Balogh, project engineer of the company. Weatherhead showed samples of new all-steel hydrogen brazed line valves for hermetic systems from ¼ to ½ hp.

Lawrence A. Bordner, sales manager for the Arcade Mfg. division of the Rockwell Mfg. Co., exhibits new display board of Arcade hinges for use in wholesalers' salesrooms.

What's New

Special Service Tools

During the Show Bonney Forge & Tool Works announced new refrigeration tools such as a reversible ratchet, small hack saw, offset screw drivers, small plier set, clutch head screw drivers, hexagonal keys, a bushing driver set, and a flaring tool.

To help refrigeration jobbers in their sales efforts, Bonney introduced a jobbers' salesman sample board. This board is designed to be carried by jobbers' salesmen on their round of calls and shows samples of the various refrigeration tools in the Bonney line.

Back of each board is constructed to hold eight Bonney pocket size catalogs for distribution to servicemen. The boards are 16 x 22 in. and are equipped with an easy-grip handle for carrying.

Steel Insulation

Several types of applications of "Ferro-Therm" steel insulation were exhibited by American Flange & Mfg. Co., Inc.

Ferro-Therm is a sheet of No. 38 USS gauge alloy-coated steel that is claimed to reflect 90 to 95% of all radiant heat. As an insulating material it is stapled permanently in place and is said to be impervious to fire, moisture, rodents, or insects.

Heavy-gauge Ferro-Therm comes in 18 to 26 USS gauge. It has application in such places as cold storage rooms, locker plants, fur vaults, and the like. This product was used in many vital war projects.

Plastic Shipping Box

A new 4½-cu. ft. plastic shipping container for both fresh and frozen foods was shown for the first time by R. H. Bishop Co.

Features of the container, developed by Bishop in cooperation with U. S. Rubber Co., were announced as durability, light weight, and heavy insulation. It will be available in any color and also in other sizes, it was reported.

Also on display was Bishop's 16-cu. ft. farm and home freezer, its frozen food display unit, and its attic fan. A company spokesman said new additions to the line would be made April 1.

Lockers In Color

A change in the color scheme of the Safe-Way Food Locker Co.'s line was announced at the All-Industry Show.

The new color combination employs white enamel baked over Bonderized heavy gauge steel. Moss green facing sets off the door and drawer openings.

Both in the same bracket!

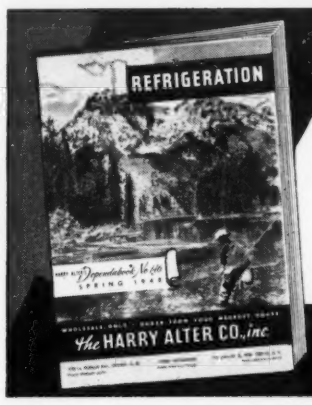
THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

...ACTIVE, ALWAYS CIRCULATING. DESTROYS MOISTURE CHEMICALLY, ECONOMICALLY, QUICKLY AND EFFECTIVELY.

TRACE
REFRIGERANT LEAK DETECTOR

... ITS STABLE AND VIVID RED COLOR REVEALS LEAKS .... INSTANTLY!

HIGHSIDE CHEMICALS CO.
195 VERONA AVE. NEWARK 4, N. J.



IT'S OUR GREATEST SPRING DEPENDABOOK NO. 146

AMERICA'S FINEST SOURCE FOR REFRIGERATION, AIR CONDITIONING and ELECTRIC MOTOR Parts and Supplies

Write for your copy today on your letterhead, please

THE HARRY ALTER COMPANY, INC.
1728 S. Michigan Ave., Chicago 16, Illinois
134 Lafayette Street, New York, 13, New York

SURPLUS

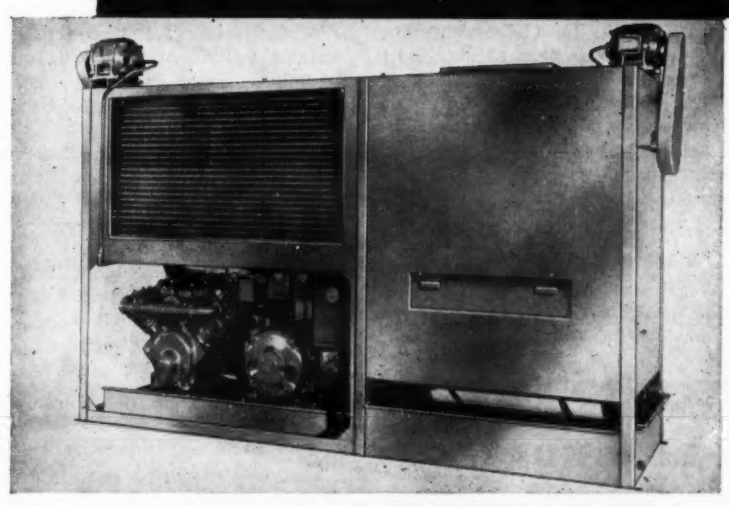
GE-CM-63 Compr. Bodies (with valves & Flywheels)	$125.00 each
Servel "Q" Compressor Bodies (with valves & flywheels)	91.00 "
Universal P Compressor Bodies (with valves & flywheels)	102.00 "
1200—Receiver Valves—Weatherhead #25068—⅜ MPT inlet x ½ SAE flare outlet	.51 "
1200—Liquid Indicators—Weatherhead #25278—½" SAE flare connections	1.16 "
211—Penn Thermostats #1260—T1AX-1103—20 to 65 degrees, 4 foot capillary	5.50 "
900—Dehydrators—Weatherhead—#22450—½" SAE flare connections—14" overall	2.64 "
202—Henry Hand Valves #6263—⅜" O.D. Sweat	1.91 "
800—Henry Hand Valves #6264—½" O.D. Sweat	1.91 "
500—Henry Hand Valves #6265—⅝" O.D. Sweat	2.34 "
200—Henry Hand Valves #6268—1⅛" O.D. Sweat	13.68 "
170—Penn High Pressure Control Switches—LRP-5003—with 30 inch capillary	6.40 "
27000 board feet 2½ x 24 x 48—Semi Rigid Fibreglass	.04¼ board ft.
400—Henry Angle Strainers #8664—1⅛ O.D. Sweat	5.15 each
900—Strainers—Weatherhead #22370—½" SAE Flare	1.44 each
400—Clarage (Furnace) Fans #7⅞" with housings (these are 10" single width)	5.00 each

Advance Manufacturing, Inc.

2700 Buchanan Street Detroit 8, Michigan

Tyler 7-7570

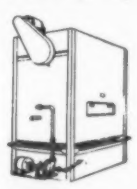
GOVERNAIR offers more in air conditioning equipment!

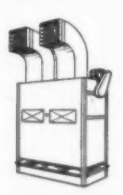


- completely packaged air-conditioner with evaporative condenser, U. S. Patent No. 2,297,928
- make only simple electrical, water and duct connections
- ready to operate
- wide range of sizes (3 tons to 50 tons)
- rapid delivery

Does high quality, and top performance spell VALUE to you? Then, take a close look at Governair's *completely* packaged air-conditioners, or at any of its other products. Flexibility, compact design, efficient operation and easy installation prove that *GOVERNAIR* is the *greatest* value known in modern air-conditioning equipment.

AIR-CONDITIONERS


EVAPORATIVE CONDENSERS


UNIT COOLERS

BLAST COILS FOR HEATING AND COOLING

WRITE OR WIRE FOR DESCRIPTIVE LITERATURE AND PRICES

GOVERNAIR

GOVERNAIR CORPORATION—313 N. Blackwelder—OKLAHOMA CITY, OKLA.

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

Home & Farm Freezer Sales Reported To National Electrical Mfrs. Assn.

Electric Home Freezers—Complete Domestic Sales Only

Household type, low temperature, mechanically refrigerated cabinet under 16 cu. ft., used exclusively for the freezing and/or storage of frozen food.

Sizes	December Units	Year Units
1. 4 cu. ft. and under	5,644	80,244
2. 5 and 6 cu. ft.	8,235	90,984
3. 7 and 8 cu. ft.	10,007	57,550
4. 9, 10, 11, and 12 cu. ft.	3,813	29,146
5. Over 12 but under 16 cu. ft.	5,088	30,839
6. **Total**	**32,787**	**288,763**

Participating companies: Aug. B. Barkow Mfg. Co. (in 9/1/47); Beatty Mfg. Co.; R. H. Bishop Co.; Brewer-Titchener Corp.; Chapman Refrigerator Sales Co.; The Coolerator Co.; Crosley Div., AVCO Mfg. Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Holverson Sales Co.; Hotpoint, Inc.; Jewett Refrigerator Co.; Jordon Refrigerator Co.; Loudon Mfg. Co.; The Maytag Co.; Masterfreeze Home Locker Mfg. Co.; Midwest Industries, Inc. (formerly Gamble & Hawley, Inc.); Motors Products Corp., Deepfreeze Div.; Nash-Kelvinator Corp.; Norge Div., Borg-Warner Corp.; Oregon Refrigerator Co.; Portable Elevator Mfg. Co.; Quillan Brothers Refrigeration Co.; Refrigeration Corp. of America (in 9/1/47); Revco, Inc.; Sanitary Refrigerator Co.; Stoddard Mfg. Co.; Whiting Corp. (in 7/1/47); Ben Bar Sales, Inc. (out 9/1/47), company purchased by A. B. Barkow Mfg. Co.; McCray Refrigerator Co. (out 8/1/47); Schelm Brothers, Inc. (out 12/1/47).

Home & Farm Freezer Sales Reported To Farm & Home Freezer Mfrs. Assn.

	4 to 6.9	7 to 10.9	11 to 15.9	16 to 20.9	21 to 29.9	30 and Over
January	3,116	920	4,515	2,786	570	226
February	1,660	920	4,845	2,569	325	249
March	2,363	780	8,813	2,436	533	164
April	5,256	466	6,222	3,016	697	112
May	1,573	625	3,113	2,917	121	72
June	3,240	1,175	4,058	4,766	210	48
July	2,810	1,348	3,415	561	280	70
August	4,276	3,545	4,575	1,102	249	50
September	3,486	2,534	5,409	870	253	61
October	978	2,146	3,267	2,535	237	38
November	1,859	1,286	3,530	3,993	252	58
December	1,640	1,076	3,994	3,853	369	77
Total	**32,257**	**16,821**	**55,756**	**31,404**	**4,096**	**1,225**

Stock-on-hand Jan. 1, 1947	1,610
Total Production	147,078
Shipments	141,559
Stock-on-hand Dec. 31, 1947	7,129
Dollar Value	$33,996,782.39
Average Unit Selling Price	$240.16

November Electric Range Shipments Below Oct. Figure

WASHINGTON, D. C.—Shipments of both apartment type and standard electric ranges during November, 1947, declined approximately 40 and 10% respectively from October, figures released by the National Electrical Manufacturers Association, have revealed.

A total of 12,422 apartment type ranges, valued at $886,079, and 83,777 standard type ranges, valued at $10,273,482, were shipped in November as compared with 20,112 apartment types, valued at $1,384,772, and 92,521 standard types, valued at $11,230,797, shipped in October.

G-E Intentions--

(Concluded from Page 1, Column 2)

committee with the cooperation of the National Association of Manufacturers. The other subjects were profits and bigness.

In what was considered the most important action taken during the meeting, industrial management was provided with specific recommendations on how and why more business information should be disseminated to the public through the press.

Prior to this move, public relations managers were urged by Holcombe Parkes, vice president of NAM, to overcome the negative reactions of their associates. He observed that "the lawyers, the accountants, and the personnel boys frequently view with alarm and veto with what sometimes seems to be fiendish glee."

"Every objective survey that has been made in recent years proves conclusively that no good presentation of the truth, whatever form the presentation may take, ever hurt an industry, a company, or a spokesman," he said. He suggested conference members stress this point.

Research studies have shown that bigness, prices, and profits are the "three great areas where public opinion toward business is unsatisfactory," it was reported by Dr. Claude Robinson, president of Opinion Research Corp. Dr. Robinson concluded that the public:

1. Is not convinced that business manages its affairs humanely, with due consideration for the individual and with due respect to the social values current in the community.

2. Is not convinced that the motives of business are wholly to be trusted.

3. Is vastly misinformed about how the economic machinery works, and this misinformation is a basic ingredient in support for collectivist ideologists.

Plan Diverts 2% More Steel to Key Industries

WASHINGTON, D. C.—A diversion of only about 2% of the nation's steel production, not enough to seriously affect any industry, is being planned under the voluntary allocation system being worked out by government and steel industry officials, it was indicated here.

Secretary of Commerce W. Averell Harriman has said that the needs of four essential industries that he wishes to see adequately supplied would take less than 10% of the total finished steel output.

These industries, manufacturers of freight cars, agricultural equipment, oil refinery equipment, and builders of low-cost housing, received during 1947 a total of 7.8% of the finished steel output.

Of these four industries, only the last two seriously need more steel, it was indicated. The first two seem to be adequately supplied to meet their present programs.

Expected to be helpful in filling the increased requirements of these industries without cutting down very much on others, are 3,000,000 tons of new steel production and finishing capacity installed within the last year. Increased production from these units is anticipated for the coming year.

Conspiracy Charged--

(Concluded from Page 1, Column 3)

sale of such equipment inasmuch as the customer could not get the equipment installed and therefore had to return the merchandise and have his money refunded.

Natemeyer stated that a company survey showed that 334 of its stores have had trouble of this nature. Although some of the stores have worked out a local solution to their problem, 89 have been completely unsuccessful and 183 are able to sell directly to the customer only if the customer makes his own arrangements for installation.

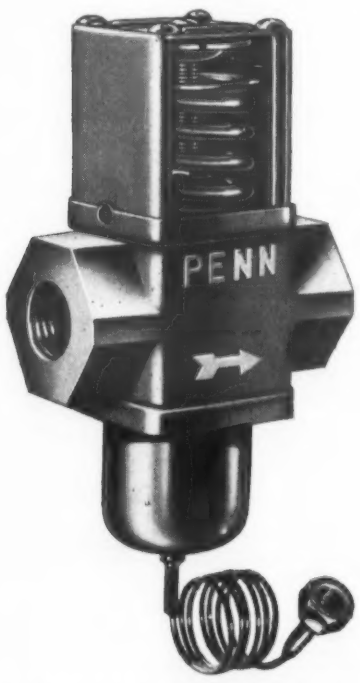
In cities where Sears has had difficulty, Natemeyer declared, installers have explained that if they handled equipment sold by a mail order house, their wholesaler would not sell them plumbing supplies for their own jobs and that members of the Master Plumbers Associations have agreed not to install plumbing sold by Sears.

The situation faced by Sears was described by Natemeyer as follows:

"State laws and city ordinances state that plumbing must be installed by licensed master plumbers. A large percentage of them do not have showrooms where a customer can make his selection. Instead they take the customer to a showroom of a supply house which sells only to the plumber.

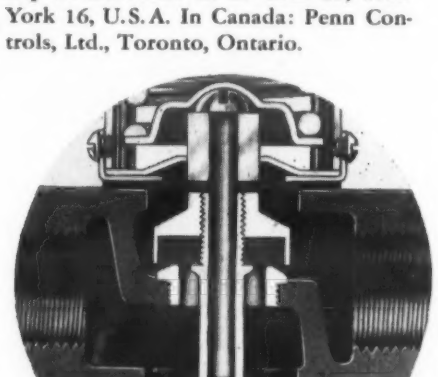
"These supply houses usually only handle the products of certain manufacturers who sell only to these supply houses. The master plumber in quoting his customer a price adds a markup to his cost price from the supply house."

SWITCH TO PENN FOR DEPENDABLE WATER VALVES

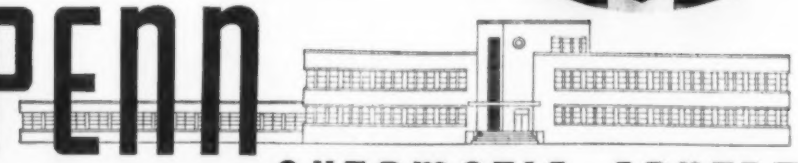


It's the simplified design of PENN 246 Water Valves which contributes so much to their dependability and long life. Examine the cross section below—note that water cannot come in contact with the range spring and sliding parts. Protected from sedimentation... corrosion... and rust, which cause premature wear and failure, these *better* valves assure better performance through the years.

Switch to Penn for dependability... on your next refrigeration job specify and buy the PENN 246. They're built in threaded and flanged styles—in a wide range of sizes to meet your specific need. Send now for Bulletin R-1986-B. **Penn Electric Switch Co., Goshen, Ind.** Export Division: 13 E. 40th St., New York 16, U.S.A. In Canada: Penn Controls, Ltd., Toronto, Ontario.



PENN



AUTOMATIC CONTROLS

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—It's Like Having Our Plant in Your City!

Your Kerotest Wholesaler is our representative in your locality as truly as a branch of our own plant. He carries a comprehensive stock of the entire Kerotest Refrigeration Valve and Fittings line and he is up-to-date on the latest "know-how."

Look to your Kerotest Wholesaler to keep you posted with the latest developments in refrigeration valves and fittings—for new technical data or advice and—for immediate supplies of the latest and finest in valves and fittings—KEROTEST.

Take advantage of the prestige Kerotest lends to your jobs. Every installation . . . every replacement made with genuine Kerotest Valves and Fittings identifies you as a craftsman who knows and uses the best. For every refrigeration problem . . . for every need . . . see your Kerotest Wholesaler! Kerotest Manufacturing Company, Pittsburgh 22, Pa.

KEROTEST

First with the Latest in Valves...